Water.
A flood of ideas for California’s H₂O woes

ALSO: Saving species
Alumni changing the world
one gift at a time
From the Chancellor

Among the most gratifying aspects of being the chancellor of UC Santa Cruz is meeting people who care deeply about the campus. This place speaks to our hearts and minds, evoking genuine affection that often grows stronger over time.

One group that shares a commitment to UCSC is the Chancellor’s Associates, a giving society made up of individuals who value our campus mission of teaching, research, and public service. They donate to a fund I’ve used to support meaningful projects, including expanding the library, underwriting innovative research, and providing career-building internships.

Students who participate in the Chancellor’s Undergraduate Internship Program (CUIP) are among the beneficiaries. These students work in units across campus, from admissions to sustainability, developing personal and professional skills as they take the lead on significant, year-long projects. Each intern is matched with a mentor who provides support along the way.

As part of a seminar course associated with the internship, I meet with the CUIP interns twice every year. They are always an impressive group, and I come away inspired by each visit.

Student Bailey McWhorter (Porter ’14, film and digital media) is a CUIP intern working with UCSC’s Good Neighbor Initiative, which promotes positive relations between UCSC and the City of Santa Cruz. Bailey works with the city to address student-related issues, serving as a bridge to facilitate the “town-gown” relationship.

In addition, she and her fellow interns organized a community and arts festival in downtown Santa Cruz featuring student artists and performers, university organizations, and live music. The festival showcased what’s happening at UCSC and sparked connections and conversations with members of the community.

In the process, Bailey gained valuable career experience in marketing and politics—hands-on opportunities that enhance what she has learned in the classroom.

As I hope you know, UCSC recently kicked off its first-ever major fundraising effort, The Campaign for UC Santa Cruz. Our goal is to provide new resources to the campus, enabling students and faculty to follow their passions and make their mark on the world—just as Bailey is doing.

We are making great progress toward the campaign’s $300 million goal. We’re at $164 million now, and momentum continues to build; see page 2 for a campaign update. All gifts, including those to the Chancellor’s Associates, count toward the goal.

If you’re passionate about UCSC—about helping the campus, its students, and faculty reach new heights, solve new problems, and create engaged and involved citizens—then please join me. Become a Chancellor’s Associate and support The Campaign for UC Santa Cruz.

Sincerely,

George Blumenthal

George Blumenthal

To learn more, visit giving.ucsc.edu/associates

Become an associate

Editor’s Note

The other day, splashing in the bathtub, one of my sons carefully poured water from one cup to another and back—one of his favorite bath time activities.

“I making wadoo!” he shouted gleefully, beaming me a huge smile.

After my heart melted, I got to thinking.

Why can’t we make water? We make all sorts of synthetic compounds, from silicone to Velveeta. You’d just need to slam together a couple hydrogens and an oxygen. It would solve an awful lot of problems if we could just manufacture the stuff.

For most of California, 2013 was the driest year in recorded history. Statewide, the seasonal snowpack was less than a third of the average, as reported by the state Department of Water Resources on April 1. Gov. Jerry Brown declared a water emergency on Jan. 17, calling for statewide 20 percent voluntary cutbacks, and some communities are rationing.

The severity of the drought will surely affect one thing that’s central to everyone: food. Grocery bills will likely go up because fewer acres of land are being planted and crop yields are shrinking, and the drought could prove devastating to those served by food banks.

Combining two hydrogen atoms and one oxygen atom to make water sounds simple, but unfortunately, combining these atoms produces a lot of energy—and could cause dangerous explosions. Also, the quantities of water we need are so vast it seems likely we could never produce enough, and it would be prohibitively expensive.

UCSC researchers are working on options—and none of them is as risky or hazardous as a hydrogen explosion! The ideas range from conservation to recycled water to the creation of water reserves (see “Dry, dry again,” page 10).

It’s at least comforting to know that bright, passionate people here are working on some of humanity’s complex, long-term, seemingly intractable issues. It makes me feel like the future my sons inhabit might turn out to be OK.

Almost instantaneously after my son “made” water, he went on to making “smoothies.” Ah, the 2-year-old mind … it flows as swiftly as a river—when there isn’t a drought.

— Gwen Jourdonnais, editor
Where’s Sammy? Congrats go out to Liana Ottaviano (Cowell ’92), who was the first to write in with Sammy’s hiding spot in the fall ’13 issue! When she’s not hunting for Sammy, Liana can be found in Bend, Ore., commuting to work with a UCSC alumni plate frame, exploring with her husband and daughter, and volunteering. For the record, Sammy was sitting in front of Chancellor Blumenthal’s podium in the top row of photos from Alumni Weekend 2013 on page 36. We received 23 responses to the Where’s Sammy challenge. And now he’s slithered off again! Can you find him? He looks like the Sammy hanging out in the UC Santa Cruz logo, above. First alum to tell us where he is gets a shout-out in the next issue. Go Slugs! Write us at review@ucsc.edu.

Philanthropy at every level is bringing critical new resources to UC Santa Cruz.

UCSC researchers are confronting the challenges of consecutive dry years that have left California in a water crisis.

Island Conservation, a Santa Cruz nonprofit with UCSC roots, has saved nearly 400 species from possible extinction.

Eight alums formed a socially conscious nonprofit as a way of keeping in touch—and have since funded more than $180,000 in projects.
THE CAMPAIGN FOR UC SANTA CRUZ. GIVE. DON’T GIVE IN.

CAMPAIGN UPDATE

From on-the-ground work in environmental science to facilities that enrich student experiences, philanthropy at every level is bringing critical new resources to UC Santa Cruz. The campus is reaching out to its alumni and others to increase private support with a goal of $300 million by the end of the campaign. Gifts and grants to date: $164 million.

HONORING KEN NORMI

A $2 million gift from the David and Lucile Packard Foundation extends and honors the legacy of Kenneth S. Norris, a preeminent professor of natural history at UCSC. The gift will provide enduring support for the Natural History Field Quarter, an intensive and immersive field-based program in natural history that Norris founded, as well as funding for a center for natural history that will be named in Norris’s honor. Both are based in the UCSC Environmental Studies Department.

Norris, an acclaimed marine mammal researcher and founder of the UC Natural Reserve System, established UCSC as a national leader in educating students who go on to become environmental leaders in conservation and stewardship of the planet. He retired in 1990, but remained active until shortly before his death in 1998.

As a teacher, Norris was legendary for his ability to inspire students. Beginning in 1973, each spring he led the two-dozen field quarter students into the mountains, forests, and deserts of California to learn from nature firsthand. More than 1,000 students have taken the field quarter; in 2012, 500 of them returned to campus to celebrate its impact on their lives.

The current UCSC Museum of Natural History Collections will be the foundation for the new Norris Center for Natural History. The collection includes more than 125,000 specimens of plants, fungi, lichen, marine algae, insects, fish, amphibians, reptiles, birds, and mammals. It supports hands-on laboratory and field activities for more than 20 undergraduate classes, serving 700 to 1,000 students per year. The center will support broader education and research activities across campus and in the Santa Cruz community.

ABOUT THE CAMPAIGN

NOW AT $164 MILLION

Launched in October, The Campaign for UC Santa Cruz is comprehensive—it seeks to build resources all across campus and in signature initiatives. Its goal is to enhance UCSC’s extraordinary educational environment, high-impact research, and deep commitment to social and environmental responsibility.

LEARN MORE

campaign.ucsc.edu

Questions about ways to give:
Email: giving@ucsc.edu
Call: (831) 459-2501

AMONG OTHER GIFTS:

From Alex’s Lemonade Foundation, a two-year $250,000 grant for childhood cancer research in support of Camilla Forsberg’s work to identify the root cause of acute lymphocytic leukemia. Forsberg is an associate professor in biomolecular engineering and co-director of the UCSC Institute for the Biology of Stem Cells.

From alumnus Bill Hancock (Cowell ’79, environmental planning), funding to jump-start a feasibility study in support of reopening the Quarry Amphitheater. His ties to UCSC run deep: two siblings are also alumni.

(Right) The late UC Santa Cruz professor Ken Norris points out a trap-door spider’s nest in the field for students in his Natural History of California class.
For a good-sized chunk of limestone, UC Santa Cruz’s Founders’ Rock is pretty easy to miss. Even though it’s hip high and sits about four feet from a sidewalk between Cowell College and the Humanities 1 building, most people walking by don’t give the rock a second glance.

It’s not mentioned in campus tours and gets short shrift in UCSC history. But it was center stage on a late afternoon on April 17, 1964, when hundreds of people gathered to witness the dedication of the UC system’s newest campus.

A long line of cars snaked from town to the campus on that day. UC President Clark Kerr was on hand, along with state senators, city council members, and some UC Regents. A month after the ceremony, UCSC Chancellor Dean McHenry revealed that President John F. Kennedy was to have participated in the dedication ceremony, but an assassin’s bullet had ended those plans.

Yellowed clippings from the Santa Cruz Sentinel recount how a crowd of about 1,800 people listened to then-Gov. Edmund G. Brown praise the campus’s beauty and declare that its addition would “demonstrate again California’s unique commitment to tuition-free higher education.”

The only mention of a Founders’ Rock, however, is a photo showing a smiling Gerald Hagar, the retired chairman of the Board of Regents, holding a bronze plaque in front of the limestone boulder. Among the plaque’s 29 names are Speaker of the California Assembly Jesse Unruh and UC Regent Dorothy Chandler, an arts patron and cultural leader who was married to the former publisher of the Los Angeles Times.

The newspaper’s caption calls the rock “Founder’s Stone,” but there is no mention of who decided UCSC needed a memorial rock or where it came from or why it was placed at this seemingly unremarkable spot.

“I believe (then-campus architect) Jack Wagstaff recommended it after consulting with (UCSC landscape architect) Tommy Church,” remembered Hal Hyde, who was the campus’s business and finance manager at the time and attended the dedication ceremony.

Both Wagstaff and Church were UC Berkeley educated, he noted, and had strong ties to that campus, whose own Founders’ Rock marked the day almost exactly 104 years earlier on April 16, 1860, when 12 men “consecrated” the undeveloped Berkeley campus site to learning.

It also may not have hurt that before coming to UCSC, McHenry taught at UCLA, where a 75-ton Founders’ Rock held a central spot on campus.

UCSC’s boulder came from one of the quarry sites on campus, according to Hyde, and its location under an elegant oak afforded a short walk for dignitaries at the dedication, which was held where UCSC’s inaugural Cowell College was to be built.

Work was underway on the Natural Science Unit and Central Services Building, but Cowell’s construction had been delayed, and Hyde remembered that, at the time of the dedication, campus officials were worried that postponements would mean the college’s first students would have nowhere to live. They’d even considered bringing a Navy ship to the bay to use as a dormitory but later settled on a grouping of trailers instead, he said.

“It was just a milestone of a time, the pulling of everything together,” said Hyde of the dedication. “Here we were, and the future was ahead of us.”

—Peggy Townsend

Participants in the 1964 dedication: California Governor Edmund G. “Pat” Brown, University of California President Clark Kerr, and Santa Cruz Sentinel editor Gordon “Scotchy” Sinclair affixing the plaque to Founder’s Rock.

First UCSC photobomb? Who are those cute little boys photobombing the gentlemen in this picture? Help us solve the mystery! If you know, write us at review@ucsc.edu, and we’ll put the answer in the next issue of Review.

Your UCSC history
To prepare for UCSC’s upcoming 50th anniversary, we have created an online timeline. But no telling of the campus’s history can be complete without you. Please check out this exciting project — and contribute a photo or other personal memory of your time at UCSC. 50years.ucsc.edu/timeline
Sea stars in peril
A mysterious disease that causes sea stars to decay and fall apart within a few days became widespread along the U.S. West Coast late last year. First reported off the coast of Washington in June, the disease known as “sea star wasting syndrome” has now been observed as far north as southeast Alaska and as far south as Orange County, California.

The Pacific Rocky Intertidal Monitoring Program, led by Pete Raimondi, professor and chair of ecology and evolutionary biology, has been documenting the disease at the group’s long-term monitoring sites along the West Coast and collecting reports from other scientists and citizens.

Raimondi said citizens can help by reporting observations of the disease on his group’s Sea Star Wasting Syndrome web site. Visit news.ucsc.edu/2013/11/sea-star-disease.html for more information.

Grateful Dead drummer pays tribute
Grateful Dead drummer Mickey Hart honored the late UC Santa Cruz music professor Fred Lieberman in January at a celebratory memorial event in the campus’s Music Center Recital Hall.

A lifelong researcher into the indigenous musical styles and traditions of China, Japan, Korea, Tibet, and South India, Lieberman was co-author with Hart of the book Drumming at the Edge of Magic in the mid 1990s.

Lieberman was also instrumental in helping to bring the Grateful Dead Archive to UC Santa Cruz. He passed away on May 4, 2013.

Student perspective: Game design
Designing a computer game is a lot like a relationship, says Lauren Scott, a 21-year-old UC Santa Cruz student majoring in computer science and business management economics.

First, there’s the honeymoon phase when the idea seems perfect in every way. That’s followed by the rocky stage where code starts to get unwieldy and bugs emerge.

Finally, there’s the phase where the designer watches people have fun while playing her game.

That kind of risk and reward is part of what keeps Scott in a field she describes not only as a vehicle for technological change but for cultural change, as well.

Scott and two other students designed a puzzle-style computer game they called Half/Way. She also worked on UCSC’s social simulation game Prom Week and designed an economics-centered game for Sifteo cubes named Investio, among other projects.
UCSC, Hastings to offer accelerated law degree

A new joint program, the first of its kind in the University of California system, will enable UC Santa Cruz students to earn a bachelor’s degree and law degree in six years instead of the usual seven.

The “3+3 BA/JD” Program between UCSC and UC Hastings College of the Law in San Francisco is set to accept its first applicants in the fall. UCSC students who declare their intent in their freshman or early sophomore year will complete three years at UCSC and then move on to UC Hastings to begin the three-year law curriculum.

Quasar illuminates structure of universe

Astronomers have discovered a distant quasar illuminating a vast nebula of diffuse gas, revealing for the first time part of the network of filaments thought to connect galaxies in a cosmic web. UCSC researchers led the study, published in January in Nature.

“This quasar is illuminating diffuse gas on scales well beyond any we’ve seen before, giving us the first picture of extended gas between galaxies. It provides a terrific insight into the overall structure of our universe,” said coauthor J. Xavier Prochaska, UCSC professor of astronomy and astrophysics.
Device does double duty

A novel device that uses only sunlight and wastewater to produce hydrogen gas could provide a sustainable energy source while improving the efficiency of wastewater treatment.

A research team led by Yat Li, associate professor of chemistry, developed the solar-microbial device and reported their results in a paper published in the American Chemical Society journal ACS Nano. The hybrid device combines a microbial fuel cell (MFC) and a type of solar cell called a photoelectrochemical cell (PEC).

In the MFC component, bacteria degrade organic matter in the wastewater, generating electricity in the process. The biologically generated electricity is delivered to the PEC component to assist the solar-powered splitting of water (electrolysis) that generates hydrogen and oxygen.

Slugs glow in Hollywood spotlight

Former UCSC students are basking in the limelight.

Andy Samberg, a past Saturday Night Live cast member, picked up a 2014 Golden Globe Award for Best Actor in a TV Series Comedy for his new show, Brooklyn Nine-Nine. Samberg spent his first two years of college at UC Santa Cruz in 1996-98, during which he worked as a ticket-taker at the old Del Mar movie theater in downtown Santa Cruz.

One of the most highly anticipated new television shows—True Detective on HBO, starring Woody Harrelson and Matthew McConaughey—was directed by alumnus Cary Fukunaga (College Eight ’99, history). Fukunaga first gained notice when he received the best “Directing, U.S. Drama” award at the 2009 Sundance Film Festival for his debut feature film Sin Nombre.

Fast break for success

Growing up, James Townsend didn’t have much. His father lived behind the grey walls of Folsom State Prison and his mother’s salary barely covered the expenses of raising four children. The family relied on food stamps and lived in Section 8 housing in a part of Sacramento where crime and drugs were rampant.

If statistics were to be believed, Townsend walked a narrow path between following in his father’s footsteps and the successful future his mother, Marilyn Townsend, envisioned for him.

Then, as an 8th birthday present, his mother enrolled him in a Salvation Army basketball league where the young boy not only found his passion but a series of
coaches who taught him about life both on and off the court.

Today, the 20-year-old Townsend is a standout basketball player at UC Santa Cruz with a 3.3 GPA and the goal of working to reform inner-city schools.

Grad student receives acclaim from Indian press

A new book by Tsering Wangmo Dhompa—a graduate student in literature at UC Santa Cruz—was recently launched in Dharamsala, India, by the prime minister of the Tibetan government in exile.

Titled A Home in Tibet, the book is a lyrical homage to her mother—a former member of Parliament in the exiled government, who died in a car crash in India when Dhompa was 23—and to Tibet.

Following readings in Delhi and Katmandu, the book has since been garnering acclaim from major press in India.

“[Tsering] tries to weave a powerful tale of personal history and loss without sentimentality. In her moving narrative laced with occasional nostalgic detours, Tibet is also a main character, a land and its people who remain under subjugation,” the Hindustan Times noted.

Grant will nurture ag education

UC Santa Cruz has a history of education and innovation in agroecology and organic farming that stretches over four decades, and hosts one of the oldest campus farms in the nation. A new grant from the U.S. Department of Agriculture builds on those strengths to expand opportunities for UCSC students studying sustainable agriculture, and for Central Coast junior college and high school students who might not otherwise have considered a career in agriculture.

The three-year, $730,000 grant is part of the USDA’s Higher Education Challenge program, which funds efforts to improve agricultural education in the U.S. and attract students to the agricultural sciences. UCSC will team with Cabrillo and Hartnell colleges, along with programs that serve high school students, to bring more students into four-year degree programs focused on sustainable agriculture.
JFK assassination course draws crowd

Many of the students in the UC Santa Cruz course about the John F. Kennedy assassination were born more than three decades after the president was gunned down in Dallas.

But interest in that tragic day remained strong on campus 50 years after the fact. The course, taught by public interest lawyer and lecturer Daniel Sheehan, was at capacity during winter quarter, with 30 undergraduates and 50 life-long learners.

Sheehan, who graduated from Harvard Law School, has a 44-year-long legal career marked by his work on such important, and controversial cases as the Watergate burglary and the Pentagon Papers in the early 1970s.

His course covers the events and circumstances of the killing, as well as various ideas, perspectives, and conspiracy theories about the murder.

Giving back to a community in need

Cassidy Kakin strides across the blacktop at Clyde L. Fischer Middle School in East San Jose, a strong wind tousling his dark hair. He’s already met with a sullen girl who’d been disruptive in class and scheduled a stress-reducing walk with a student who was having trouble staying focused.

Now he’s zig-zagging off to talk to a boy who was causing problems in a classroom.

It’s just another day in the life of Kakin, a 2013 politics graduate from College Nine, who is spending 12 months of service with City Year, a non-profit, AmeriCorps-sponsored program that works to increase attendance and test scores in high-need schools with tutoring and mentorship help.

Kakin, 21, is one of 35 UC Santa Cruz alumni working for City Year, making UCSC the No. 4 feeder school in the nation for the program.

“My students are very passionate about social justice and are also very action-oriented, making City Year the perfect avenue for them upon graduation.”

MLK speaker promotes dreams, values, education

Peering into the darkened Santa Cruz Civic Auditorium, Freeman A. Hrabowski III asked that the house lights be brought up a bit so he could see the audience’s faces.

“As an old math teacher I like to see who is falling asleep,” he said.

More than 300 pairs of eyes stayed wide open for Hrabowski’s rollicking 25-minute keynote address at the 30th annual UCSC Martin Luther King Jr. Convocation in February.

Hrabowski, longtime president
of the University of Maryland, Baltimore County, set the stage for his talk, “The Role of Youth in the Civil Rights Movement: Reflections on Birmingham,” with a reading based on “dreams and values.”

Sellars channels the power of art

Peter Sellars, one of America’s leading theater directors and an innovative figure in opera, mostly ignored the podium and steered clear of the stage during the 13th annual Maitra Lecture in December.

Instead, Sellars, whose imaginative stagings of plays and operas often reflect on war, poverty, and the voices of people left behind by history, went out into the crowd, bound-up stairs at the UCSC Music Center Recital Hall, and inviting audience members to interrupt him at any time.

A few took him up on his offer, riffing on subjects ranging from the soullessness of Ikea furniture to the commoditization of art.

But Sellars touched down on serious subjects: the way art can bridge various disciplines, how art gives meaning to people’s lives, and the urgent need to hear suppressed voices, including those of prisoners.

Romero’s got game

Brenda Romero, program director for UCSC’s Games and Playable Media master’s degree program, was featured on a list of the “Top 10 Game Developers of 2013” from computer game news site Gamasutra.

Romero said it was “a huge surprise” to see herself on the list, which includes industry giant Nintendo and a number of small independent game studios.

Romero was also listed among 25 people who changed games in 2013 by Develop, a games industry website and magazine.

In addition, UCSC’s undergraduate and graduate game design programs were recently named among the top programs in the country by the Princeton Review. They both made the company’s “top 25” lists for 2014 of the best undergraduate and graduate schools for students to study game design.

Computer-human interaction expert wins lifetime achievement award

Psychology professor Steve Whittaker, a specialist in human and computer interaction, won the 2014 Lifetime Achievement in Research Award given by the Special Interest Group on Computer-Human Interaction, a professional society for human-computer interaction researchers.

Whittaker works at the intersection of psychology and computation, using insights from cognitive and social science to design new digital tools to support effective multitasking, memory, collaboration, and socializing.

Welcoming new leadership

Keith E. Brant has been named vice chancellor of University Relations, which oversees fundraising, alumni relations, communications and marketing, government and community relations, operations and planning, and special events for the university.

Brant comes to UCSC from Saint Mary’s College of California in Moraga; he previously held roles at UCLA and UC San Diego. Brant will be working with Chancellor Blumenthal, faculty and academic leaders, the University Relations team, and UCSC’s alumni and friends to bring new private resources and recognition to the campus.

(Above, from left) Freeman A. Hrabowski III, Peter Sellars, Brenda Romero, Steve Whittaker, and Keith Brant
It may be too late to pray for rain.

For most of California, 2013 was the driest year in recorded history, and so far, 2014 is looking like more of the same. The state is now running into three dry years in a row. Statewide, according to an April 1 survey, the seasonal snowpack was 32 percent of the average.

Meanwhile, California’s big rivers, including the Sacramento and San Joaquin, have dramatically less surface water, groundwater levels throughout the state have dwindled, and most reservoirs are far below their historic levels.

While the state has had droughts before, most notably in 1976, conditions like these haven’t been seen before in California’s recorded history—while longer-term history suggests that the past century has been unusually wet.

Gov. Jerry Brown declared a water emergency on Jan. 17, calling for statewide 20 percent voluntary cutbacks, and some communities are rationing.

The severity of the drought will inevitably affect one thing that’s central to everyone: food. Grocery bills will likely go up because fewer acres of land are being planted and crop yields are shrinking, and the drought could prove devastating to those served by food banks.

Now, even a series of serious downpours may not be enough to make up the difference.

For most of us, water has been reliably provided out of the faucet at a very economical cost. But there’s no guarantee that there will be enough water in the future for everyone.

What, then, are the solutions to this statewide problem? UCSC researchers Brent Haddad, Ruth Langridge, and Andy Fisher, anticipating possible future water crises, have been working on options, from conservation to recycled water to the creation of water reserves.

Options beyond the traditional

Brent Haddad, professor of environmental studies and technology management, and director of UCSC’s Center for Integrated Water Research, was giving a tour of the Water Teaching and Research Laboratory (WaterLab) established by the center and the city of Watsonville.

He stood in front of a machine that looked like the figment of a sci-fi novelist’s vivid imagination—a long, snaking device composed of cylindrical white-painted tanks, with coils, wires, and dials.

This device, known as a reverse osmosis system (which some
bottled water companies use), takes previously treated wastewater and seawater and makes it so clean that anyone could drink it safely.

No water is allowed to leave the facility; it is strictly a laboratory. But if WaterLab shipped its water offsite, it could supply a steady flow of water that is safe for consumers.

The success of the osmosis machine gives Haddad hope that Californians have options far beyond their traditional sources, which he believes rely much too heavily on snowpack and rainfall. California communities, especially in drought years, are vulnerable if they rely, for instance, on two or three reservoirs fed by rivers that flow closely together. Such cities and towns are at the mercy of rainfall; when the water doesn’t fall from the sky, the supply shrinks, Haddad said. Santa Cruz, for example, is almost entirely dependent on rainfall for its water supply, and the San Lorenzo River, which supplies most of the water, is at a near-record low.

Haddad said that such rainfall-dependent cities should look into
diversifying sources. He cited a range of options, from surface water to groundwater, treated recycled water, and desalination.

In one sense, now is a good time for Californians to confront the issue of water supply, and consider these various options, because a crisis forces leaders to focus, Haddad said. On the other hand, “it is also a bad time because the need for water is so immediate. We need to do thoughtful, long-term planning while being aware that there are crises from time to time, and we happen to be in one now.”

So far, Californians haven’t exactly warmed to the idea of drinking water recycled from sewage, no matter how expertly it is treated, although many areas, including the Pajaro Valley and Salinas Valley, already use reclaimed water in agriculture.

But Haddad predicts the state-wide resistance to drinking recycled water could change; historically, the state’s most heavily populated areas including Southern California have relied on water “imported” from northern and eastern sections of the state, but environmental degradation has made the future supply uncertain. Some areas of Southern California already are supplementing their drinking water with highly treated reclaimed water that they store in groundwater aquifers.

Desalination plants are another response to shrinking water supply. “The value of a desal plant depends in part on how prone all the other water supplies serving a region are to a drought,” Haddad said. “The greater the overall drought risk, the more valuable the reliability of a desalination plant becomes.”

Other possibilities include “drought banks” set up between farmers and neighboring communities and the creation of water reserves through joint agreements.

Solutions through good policy

Californians have allowed themselves to be taken by surprise by the dry years, said Ruth Langridge, a UCSC research associate in social sciences. On the bright side, she thinks it’s not too late for the state to learn from its past mistakes.

But a better water policy would require a dramatic departure from the past, she said.

Langridge, a water policy expert, likes to quote a famous line from John Steinbeck’s East of Eden: “… it never failed that during the dry years the people forgot about the rich years and during the wet years they lost all memory of the dry years. It was always that way.”

The past century was “mostly wet until now,” and the enduring wetness influenced policy decisions for many years, she said. “What do we do? We expand our agriculture and, during the wet years, we say, ‘We now have all this water, so let’s do that development we wanted to do,’ and it tends to make us more vulnerable down the road because now we need even more supply during dry years.”

She also puts some of the blame on developments that were green-lighted in the years before “show me the water laws” required builders to show where their water supply would come from before breaking ground.

While Langridge said low-flow toilets and “recycled water” strategies can help, communities still leave themselves vulnerable if they don’t have reliable water reserves.

But how should communities get those reserves? During rainy years, instead of falling back on old patterns and using up more water, communities could use some water to refill aquifers so that groundwater pumping, during inevitable droughts, won’t threaten to dry up the resource, she said.
Unfortunately, this has not occurred in many regions of California, as witnessed by the continued decline of groundwater levels despite the past 100 years being relatively wet and despite having built major storage and transmission systems that were supposed to address water shortages, Langridge said.

She pointed out that drought depends not just on dramatically reduced supply but on severe demand. For example, California in recent years has been producing a bumper crop of almonds, edging out even the Middle East. As almonds have replaced less "thirsty" annual crops, the net effect is the need for more water. "When there is a shortfall of precipitation where the farmer initially could have adjusted, the farmer is now experiencing the shortfall as a major drought," she said.

**Climate change only part of the story**

A recent *New York Times* story delved into a dispute between scientists about just how big a role climate change is playing in the most recent drought, with several experts blaming some of the problem on "natural variability" of rainfall. But UCSC Earth and planetary sciences professor Andy Fisher said that for California, warming climate was merely "the icing on the cake." Changes in land use also contribute to reductions in groundwater supply.

"Imagine what Pajaro Valley looked like 200 years ago," he said, referring to the now highly populated southern reaches of Santa Cruz County. Once, the area was rolling coastal forests. "Now there’s lots of cover, cement, asphalt, and agricultural fields that are sometimes covered in plastic, or housing developments and roads."

Once-overflowing aquifers are not getting the rainfall they need because the water cannot permeate. Fisher and his colleagues are exploring ways to get more water into aquifers, using a set of techniques known as managed aquifer recharge.

"This approach is already being used in this region and throughout the world," Fisher said, "but we’d like to see how it can be done more commonly, efficiently, and reliably."

None of UCSC’s water experts has any simple resolution to a potential water crisis in mind. "It’s going to be a combination," Fisher said. "We will need to pursue multiple approaches. There isn’t going to be any one solution.

"None of this will be cheap," he continued. "But it will be necessary."

**On campus: Making every drop count**

For decades, members of the UCSC community have worked hard to reduce the amount of water used on a campus that was growing to meet the increased educational demands of California students. Twenty years ago, in the 1993-94 year, students, faculty, and staff on campus used a total of 170 million gallons of water. Campus water use in 2012-13—the most recent full year—totaled 178 million gallons. In those two decades, UCSC’s student population increased by almost 7,000, or 70 percent.

"Through an investment in water-saving projects, ongoing education efforts, and the value that our students themselves have placed on sustainability, we’ve continued to bring down our per-capita water use," said Lacey Raak, who serves as UCSC’s sustainability director. "While the number of students on campus increased pretty dramatically in those 20 years, our overall use of water increased at a much lower rate."

Still, the current water emergency has members of the UCSC community needing to do more.

In February, the Santa Cruz City Council announced that mandatory water rationing will begin on May 1. "Like other Santa Cruz water customers, we will have to reduce our water use significantly," Raak said. "As a community partner, we will do our part during this water crisis."

With a reduction of nearly 25 percent required by the city, UCSC has established a campus-wide Water-Use Curtailment Working Group that is identifying new short-term conservation strategies, accelerating conservation projects, and ensuring compliance with the city’s water emergency rationing.

Toward that end, UCSC has also been getting the word out about conservation tips. "Imagine the collective impact if we all step up to this challenge," Chancellor George Blumenthal said in a campus-wide message in early February that promoted water-saving habits.

Five-minute timers are being placed in campus showers, educational posters about water use have been posted in "high traffic" areas, and students are even competing among themselves to see which college can reduce the most.

"At UCSC," Raak said, "our students don’t have to be told to step up to an environmental challenge."

*To learn more about campus efforts to conserve water, please go to: ucsc.edu/conserving-water*
Island Conservation, a Santa Cruz nonprofit with UCSC roots, has saved 389 species from possible extinction on 52 islands around the world

When UC Santa Cruz grad student Brad Keitt came to the wind-swept island of Isla Natividad off Baja California, he found a fishing village of about 400 people and an ecological disaster in the making.

The island was home to a mysterious seabird known as a black-vented shearwater, a bird that haunted the night, nested in underground burrows, and could dive to depths of more than 100 feet in the ocean. Ninety-five percent of the entire species bred on that tiny island.

The problem was, the shearwaters, whose eerie nighttime cries sound like a cross between a coyote and a rooster, were disappearing. During the critical breeding season, feral cats, brought to the island to rid fishermen’s houses of native deer mice, were killing 1,000 birds each month.

A protégé of two maverick UCSC biologists, Don Croll and Bernie Tershy, who had cobbled together a plucky, seat-of-the-pants conservation team that saved threatened species by clearing islands of invasive predators, Keitt got to work.

Headquartered in a plywood shed behind the village market, Keitt studied the shearwaters by night and served as a cheerleader for the bird by day. Keitt took school children on field trips, told fishermen of the birds’ amazing abilities, and drove home the fact that this enigmatic bird was their bird, found almost nowhere else on Earth.

Within three years, villagers had adopted the shearwater as their island mascot and were asking Keitt to help them get rid of the marauding felines.

The following year, not only did the Mexican government outlaw cats on Isla Natividad, but all the wild felines had been removed. Shearwater mortality dropped to less than 100 per month.

Today, Keitt, 45, is director of conservation for a $6.5-million-a-year nonprofit called Island Conservation.
Averting extinction
Conservation, which grew out of Croll and Tershy’s work.
Over the past two decades, the Santa-Cruz based organization has eradicated rats from Anacapa Island, allowing the number of Scripps’s Murrelet nests to increase four-fold; removed packs of voracious goats that had turned the once-lush Guadalupe Island in Mexico into a near moonscape; and rid Allen Cay in the Bahamas of invasive mice, which were contributing to the destruction of native shearwaters and iguana habitat. In all, the organization reports it has saved 389 species from possible extinction on 52 islands around the world.

“It’s incredibly rewarding,” said Keitt of the work he has been doing for the past 18 years. “I feel lucky to have a job where I am making a difference that is so immediate yet lasting.”

Science into action
Islands make up only 5 percent of the world’s landmass, but they are home to 20 percent of all bird, reptile, and plant species. And nowhere are extinctions greater.

Ninety-five percent of bird species that have gone extinct once lived on islands, along with 80 percent of extinct reptiles and 55 percent of extinct mammals. Combined with the fact the pace of extinctions is ramping up worldwide, the importance of preserving island species becomes apparent.

Those facts were not lost on Tershy and Croll, a pair of scientists, surfers, and self-professed seabird freaks, who, 20 years ago—right about the time they began as UCSC research biologists—started their own two-man crusade to rid invasive species from islands in Baja California.

“These were projects we were doing in our spare time,” said Tershy, a youthful-looking 52-year-old. “We were gentleman conservationists.”

(Above) Kotuetue, French Polynesia.
Inspired by conservation work in New Zealand and by ornithologist Kenneth Stager—who, in 1958, arrived on Clipperton Island with a shotgun and single-handedly wiped out a pack of feral pigs that was decimating the island’s land crabs and seagoing albatrosses—Croll and Tershy grabbed their surfboards and traveled to a pair of wind-wracked Mexican islands. There, feral cats were obliterating Cassin’s Auklets, Scripps’s Murrelets and Black Storm-Petrels.

“We can do this,” Tershy remembered saying to Croll.

With the help of a legendary California bobcat trapper, the scruffy, underfinanced environmental tacticians managed to clear the islands of the destructive felines, allowing native bird populations to rebound.

Within five years, the two had assembled a rag-tag team of grad students, trappers, and Mexican conservationists, freeing nine islands off Baja California of invasive rats, feral cats, rabbits, goats, and burros. They called themselves Island Conservation and Ecology Group and established a formal working relationship between UCSC and their budding nonprofit.

That idea of science as a foundation for action was fueled, they said, by two legendary UCSC professors: Ken Norris, renowned marine-mammal researcher and founder of Long Marine Lab (see page 2 to read about a gift honoring the legacy of Ken Norris), and Michael Soulé, who was chairman of UCSC’s Environmental Studies Department and known as the father of conservation biology.

One day, they said, Soulé proposed this question: What if you could remove all the invasive species from the world’s islands?

That mind-blowing concept formed the basis for Island Conservation’s model of research, conservation action, and result.

“To us it was: Why apply science just to describe problems?” said Croll, a flip-flop-wearing 56-year-old. “Using science to find solutions seemed way more interesting.”

Global reach

Island Conservation’s headquarters sits in an unassuming office building not far from the Pacific Ocean. Its 35 employees, however, range around the globe: from Hawaii to the Caribbean, from the Galapagos to Australia.

They gather scientific data, work with local governments and island residents, secure permits, enlist the help of other conservation organizations, and orchestrate removal of invasive vertebrates. They also contract with independent researchers to evaluate which species recover, and how well, after eradications are complete.

One such project got underway on a remote Aleutian landmass called Rat Island. There, a UCSC study found, shipwrecked Norwegian rats were killing nesting seabirds and small land birds, causing a chain-reaction of ecological destruction. Without seabirds eating snails, limpets, and other grazers, the intertidal zone was being stripped bare of seaweed.
But, he noted, “If we don’t do what we do, we are losing entire species forever.”

And the destruction of native species by invasive vertebrates is no less cruel than getting rid of already abundant animals, according to Croll, who pointed to a video of mice literally eating a fluffy albatross chick alive.

“It’s not any of these introduced species’ fault that they’re on these islands—in many ways, it’s humans’ fault,” Croll said, “but that doesn’t mean it’s OK to let the destruction happen.”

Island Conservation’s successes far outweigh its disappointments, however, and subsequent research by UCSC has found that the bald eagle population has recovered on Rat Island, which has been officially rechristened Havadax, its traditional Aleut name. And, saving species, even one at a time, helps protect biodiversity, which, in turn, allows our delicately balanced ecosystem to continue to function.

While Tershy and Croll have moved on to other projects, UCSC still has a strong presence in the organization. Internships are offered to undergraduates, and grad students do research projects in collaboration with the group. Five of Island Conservation’s 35 employees are UCSC alumni, including David Will, who graduated in 2008 with a degree in bioinformatics.

Not only has Will taken part in eradication projects, once sleeping for months in a shipping container welded to the deck of a heaving ship, but he is also now working on an Island Conservation database project to prioritize the world’s 465,000 islands for conservation efforts. Started by graduate student Dena Spatz in Tershy and Croll’s Coastal Conservation Action Lab, the Threatened Island Biodiversity Database is now an elegant, searchable map (at tib.islandconservation.org) that allows a user to click on islands around the globe and discover which threatened and invasive species live there. Some 20 UCSC students gathered data for the project.

**From bare to lush**

Ask Keitt about Island Conservation’s most visible success and he’ll point to Isla Guadalupe, a 100-square mile, volcanic island 150 miles off Baja. Once a lush paradise of pine and cypress forests, seal hunters arriving in the late 1800s brought goats to the island for food. By the time Island Conservation arrived, thousands of cloven-hooved foragers had turned the island into a near wasteland. Native plants were mowed into oblivion, birds struggled to survive, and only about 200 pine trees had survived the goats’ onslaught.

With the help of local laborers, Keitt erected fences around a dozen small plots of land. Within six months, non-native grasses were growing inside the enclosures, but so too were pine seedlings and native species that hadn’t been seen in years. Armed with evidence of what was possible, Island Conservation and its Mexican counterpart, Conservación de Islas, received government support to remove the caprine invaders. Today, the island is home to about 10,000 new cypress and pine trees, along with island snapdragons and Guadalupe fan palms.

In 2005, the Mexican government declared the area a protected biosphere reserve. Sitting in his office, dotted with bird drawings and photos from Island Conservation projects, Keitt said he has a dream.

“I dream about someday taking my kids to some of the islands where I worked and saying, ‘I remember when there were no birds or trees here, and now look at it: It’s thriving,’” he said. “I hope they’ll appreciate that.”

*Peggy Townsend is a freelance writer based in Santa Cruz.*
Hmong pupils who received winter pants and coats with a micro-grant from Friends Foundation International.
Inspired by a UC Santa Cruz class, a group of friends formed a socially conscious nonprofit as a way of keeping in touch after graduating—and have since funded more than $180,000 in projects around the world.

As the tiny Hmong pupils tugged on winter pants and coats against the cold that swept into the mountain town of Sapa in North Vietnam, a student in the Tegeruka Secondary School in rural Tanzania flicked on the lights in his classroom. Though thousands of miles and two cultures apart, the students shared a connection. They were all beneficiaries of a micro-grant supplied by a group of UC Santa Cruz alumni who were so inspired by a single class they shared in 1975, they've spent the last 20-plus years funding environmental and social projects in projects around the world.

Inspired to act

good works.

The men have helped bring hydroelectric power to an isolated village of 50 homes in Bali. They've funded the installation of toilets and drinking fountains at a rural elementary school in Sikkim, India, and supported the education of the first female lawyer from the U'wa tribe in Colombia, whose way of life in the cloud forest is being threatened by oil companies.

So far, the men estimate, they've handed out more than $180,000, most of it in amounts that range from $100 to $2,500. Though thousands of miles and two cultures apart, the students shared a connection. They were inspired to act.

The Vietnam War had just ended when eight guys walked into a UCSC class titled The Political Economy of Ecological Problems led by a vibrant young professor named Claudia Carr, who now teaches at UC Berkeley. The course was so tangential by Peggy Townsend

change

in projects around the world.

and the majority of it from their own pockets. They've handed out more than $180,000. most of it in amounts that range from $100 to $2,500. They've reconnected with more than 50 homes in Bali. The men have helped bring hydroelectric power to an isolated village of 50 homes in Bali. They've funded the installation of toilets and drinking fountains at a rural elementary school in Sikkim, India, and supported the education of the first female lawyer from the U'wa tribe in Colombia, whose way of life in the cloud forest is being threatened by oil companies.

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Carr was what Dean Alper (College Eight ’77, environmental studies and humanistic psychology), now a litigation attorney in Marin County, described as a “dynamic dervish of a teacher.” Gesturing energetically, filling blackboards with notes, and handing out reading lists that ranged from ecologist Garrett Hardin’s “Tragedy of the Commons” to works by free-market economist Milton Friedman, she insisted students not only challenge themselves but also injustice.

“Claudia instilled in us a social conscience,” said Skye Leone (Cowell ’77, environmental planning), now a senior recreation supervisor for UCSC’s Office of Physical Education, Recreation and Sports (OPERS). “She walked her talk. She was a social activist.”

It wasn’t long before the eight guys in the class—Alper, Leone, Michael Freund, John Razz Cohn, Eric Dazey, Ken Hart, David Paul, and Glen Price—were hanging out. The men, who all loved the outdoors, scattered after graduation—some of them going to law school, others working as guides or for a nonprofit in Asia—but they stayed in touch. In 1991, they decided to form a foundation as a way to ensure they got together at least once a year. They named themselves Friends Foundation International, and their first grant helped UCSC students build a pond designed to protect the threatened California red-legged frog.

It wasn’t long, however, before the group’s projects spread beyond Santa Cruz. Their grants began to reach people in Nepal, China, Africa, South America, and Indonesia—20 countries in all. The amounts were never earth-shaking but, the men said, they made sure the grants were life-changing.

“What we didn’t want to do was fund studies or office overhead or public relations campaigns,” said Alper. “Rather, we wanted to help people who were rolling up their sleeves and doing work in communities and solving real-world problems.”

For some projects, that meant starting a ripple of funding that would spread beyond the organization’s first small grant. Or, as Leone explained: “It’s so they can say to other organizations, ‘The Friends Foundation gave us $2,500 and here’s what we did—how about giving us $10,000?’”

Other projects were more direct. A medical clinic in Panama received $600 so it could keep its medicines cold. A ranger in Costa Rica got a video camera so he could document poaching activity. Lights flickered on in a remote village in Bali where intrepid farmers raised fish in flooded rice paddies but didn’t have money for a hydroelectric system. Clean water arrived at a village in Kenya.

“It’s not the great white father swooping in and saying, ‘I know the solution,’” Leone said. “It’s, ‘Here’s some money and go do something with it.’”

“What we are very successful at,” says Freund (College Eight ’77, environmental studies and politics), now an environmental attorney in Berkeley, “is identifying projects in which a small amount of money has a large

(Above) UCSC graduate Sarah Sampson used a Richard Cooley Memorial Endowment grant to study baby mussels in the rocky intertidal zone; (below, left to right) Skye Leone, Michael Freund, and Dean Alper in the Langtang Valley in Nepal. The three are part of Friends Foundation International.
impact in protecting the environment, helping a village, or protecting public health.”

The company of friends

The entire headquarters for Friends Foundation International is contained in a file cabinet in Freund’s law office. There are no formal grant applications, no support staff. Instead, projects roll in from group members’ travels, from legal connections, or from friends.

Not too long ago, for instance, Julie Kimball, a colleague of Leone’s who teaches yoga and swimming for OPERS at UCSC, returned from a trip to Garm, Tajikistan. Considered one of the poorest Central Asia republics, the country lies on the Silk Road, with Afghanistan to the south and China to the east. Many residents of Garm grow their own food, have no indoor plumbing, and struggle to find jobs.

One woman, Rajabalieva Matluba, set out to change things and started building a community/women’s center where girls could learn job skills and women could get help protecting their legal rights. As things go in an area where there is unrest, unemployment, and little government help, by the time Kimball arrived, the half-done project had run out of money.

Friends Foundation International sent off $2,500, which was enough to buy the lumber needed to complete the center’s second floor. In a letter accompanied by photos of the center, Matluba said 15 girls trained there had recently found jobs.

The men tell stories of treks in Nepal and India, which, among other things, helped inspire them to fund a group in Katmandu called Pro Public, which uses litigation to fight against pollution of land, water, and air. They talk of riding up the remote Cuyabeno River in motorized dugouts to see for themselves the work of a legal group, Corporacion de Defensa de la Vida, which they fund and which is working to help indigenous people in Ecuador’s remote Amazon River basin gain legal title to their land and create rainforest reserves in areas affected by oil and mining companies.

They talk about the connections and relationships they’ve developed around the world. They describe how fulfilling it is to see pictures of solar panels they funded, of little H’mong kids in Vietnam wearing warm clothes.

“The obvious answer to why we do this is because it feels good,” Leone said. “But what I didn’t expect was the gratitude that people express in receiving this help from strangers halfway around the world. That’s what gives me the most satisfaction.”

Decades later, the group has diversified, with three women now on the board, including professor Carr. And while the organization recently started holding a once-a-year fund-raiser, Friends Foundation is not much different than when it began: a small group of friends, driven by a social conscience to make the world a better place.

“This is the glue that solidifies our connection to each other,” Freund said.

Big bang, small bucks

On a cold day along the rocky Central Coast of California, 22-year-old UCSC researcher Sarah Sampson dipped her fingers into the icy water of the Pacific in search of baby mussels.

Her goal was to identify algae and substrates that might attract and support California mussels, a foundational species that helps restore intertidal zones after damage from oil spills.

It was one more example of Friends Foundation International at work—although this project was closer to home.

Inspired by another teacher—the late Richard Cooley, the charismatic founder of UCSC’s environmental studies program and a gifted teacher whose work on conservation issues in Alaska has been widely recognized—the men set aside $2,400 in 1996 to start the Richard A. Cooley Memorial Endowment at UCSC.

The endowment, which has since grown to about $46,000, supports field projects like Sampson’s, which result in tangible, positive action for the betterment of the environment.

Her work, which not only helped lay the groundwork for more research into intertidal restoration but also fueled her love of field research, was another example of a small action leading to a greater result.

“We live in a place of great privilege, and to do nothing with that is, well, in Claudia’s words, ‘not acceptable,’” Leone said.

To find out more, visit friendsfoundationinternational.org

Peggy Townsend is a freelance writer based in Santa Cruz.
COWELL COLLEGE

‘68 Paul MARKOWITZ retired in 2008 after teaching in the Las Virgenes Unified School District for 34 years. He served for nine years as president of the Las Virgenes Educators Association and nine years on the Board of the California Teacher’s Association. Since retiring, he has been active in the Plato Society of Los Angeles, coordinating study discussion groups on historical topics.

‘69 Ann GRIFFIN Macfarlane is trying to transform the use of meeting procedure in the U.S. by taking Robert’s Rules and applying the best of it for modern conditions. This quixotic endeavor, based in Seattle and entitled “Jurassic Parliament,” has given her some unusual parliamentary assignments over the years. She and co-author Andrew Estep have just published Mastering Council Meetings and are writing Mastering Board Meetings. Warren NELSON, a partner at Fisher & Phillips LLP’s Irvine, Calif. office was recognized as a top attorney in The Best Lawyers in America 2014. Nelson has been listed in The Best Lawyers in America since 2010. Nancy (ROARK) Ruiz DePuy lost her husband Victor to cancer in 2008, and has since reconnected with Richard L. DePuy, whom she first met in 7th grade. The two were married in May 2013. In August, her daughter Christina gave birth to her daughter, and has since reconnected with Richard L. DePuy, whom she first met in 7th grade. The two were married in May 2013. In August, her daughter Christina gave birth to her first grandchild, Sofia. In May 2014, she is retiring as adjunct art history instructor at Cabrillo College. “In this role,” she says, “I have been inspired by my memories of Mary Holmes.”

‘70 Betsy BUCHALTER Adler, after 30 years of practicing philanthropy law with Adler & Colvin in San Francisco (the firm she co-founded), has graduated to her next set of adventures—helping to run an independent foundation, trying to move from dilettante bander to true amateur status, working on several writing projects, and enjoying the non-billable hour. Betsy and her husband divide their time between Pacific Grove and New York City and also enjoy spending time with their grandchildren in Sacramento. Roxanne KELLAM is program director at SteppingStone Mission Creek Adult Day Health Care in San Francisco. She lives in Oakland with her partner of 20 years, Leslie Brandt. They were among the same sex couples that married in 2008.

‘71 Peter MYERS’ theatrical feature screenplay on the life of Leonardo da Vinci has been picked up by two producers, who plan an $80 million production of the script. An investor in the project said the script breaks new ground in da Vinci scholarship.

‘72 Thom DODD writes: “Pam and I are still living in New Zealand (17 years now). Hope you all are as happy as we are.”

‘74 Don WALLACE’s new book, The French House: An American Family, a Ruined Maison, and the Village that Restored Them All, will be published in June 2014. The book, a memoir of his family’s adventures restoring a house on a tiny French island, has received advance raves from (among others) Jane Smiley and Meryl Streep, who said, “The French House moves to a soulful, very funny rhythm all its own.”

‘75 Karen WCISLO recently retired after 33 years with Kaiser Permanente as a genetic counselor, supervisor, and manager.

‘84 Michael BEE, a captain in the U.S. Coast Guard and deputy director of the National Maritime Intelligence-Integration Office in Washington, DC, recently returned from Saudi Arabia after serving as an advisor to the Saudi Coast Guard. He and Jill BEE (also Cowell ’84) celebrated their 31st wedding anniversary in 2013.

‘85 Martin WOLLESEN has been appointed executive director of the Clarice Smith Performing Arts Center at the University of Maryland.

‘87 Dinah SANDERS’ new book, The Art of the Shim: Low-Alcohol Cocktails to Keep You Level, is the first book to celebrate and clearly define less-boozy offerings that have all the serious rewards of their stronger siblings. Cheers!

‘88 Diana EICHER received a Surface Design Association Personal Development Grant to learn how to sew and use her screen-printed papercut imagery to construct wearable art.

‘94 Julia BERGER finally met Martin AZEVEDO (Crown ’89) after 20 years of sharing most of the same friends, interests, and Bay Area experiences. The couple married in 2012 and welcomed their son Zane in October 2013. Both work in the health care industry by day, and by night pursue creative projects often involving costumes and accoutrements.

‘96 Michael E. SIEVERS was recently promoted to counsel at Hunton & Williams in the firm’s Richmond, Va., office.

‘00 Celeste HOFFPAUR was one of 50 U.S. teachers profiled and celebrated in the book American Teacher: Heroes in the Classroom by Katrina Fried, published in October 2013.

‘05 Alli WARREN’s debut book of poetry, Here Come the Warm Jets, was released by City Lights Publishers in September 2013.

‘07 Ian STEWART and Rose SULLIVAN (also Cowell ’07) were married in January 2013 in San Francisco. The two first met in the Cowell College dormitories as freshmen, then re-met after grad school and started dating. Rose is a sixth grade teacher in San Francisco, and Ian is the editor of San Francisco Giants and Oakland A’s magazines.

STEVENSON COLLEGE

‘69 Alan DEYOUNG has been named the director of the Aga Khan University Institute for Educational Development (Pakistan). Prior to joining AKU-IDE, he was as professor and chair of the Department of Educational Policy Studies and Evaluation at the University of Kentucky. Kim JAMIESON lives in Granbury, Texas, and is an adjunct professor in the Department of Educational Leadership and Policy Studies at Tarleton State University. He spends most of his time playing guitar and mandolin and is looking forward to the 45th reunion of the Pioneer Class.

‘71 Gil STEIN has been named CAMERA’s letter writer of the year for 2014. CAMERA (Committee for Accuracy in Middle-East Reporting in America) is a media watchdog group with over 65,000 members.

‘76 Rob CLARKE is co-author (with Mark Martin) of Cannabis: Evolution and Ethnobotany, published in September 2013 by University of California Press. Clarke is a cannabis researcher and projects manager for the International Hemp Association in Amsterdam, and author of Marijuana Botany and Hashish!

‘78 Paul BERGE wrote and directed “Trying To Quit”, a short
narrative film exploring the morality of mandatory sentencing laws. The film is online at vimeo.com/buttercownfinpix.

83 Stuart LEAVENWORTH, editorial page editor of The Sacramento Bee, is leaving the paper to become Beijing bureau chief for McClatchy Newspapers. Leavenworth joined The Bee in 1999 and became editorial page editor in 2009.

89 Annabel HERTZ’s first novel, Seeing Green, is the story of a young woman on a mission to puncture the stasis of Reagan-Bush environmental policy.

93 Susan E. SMITH has been elected to shareholder at the nationwide law firm Segal McCambridge Singer & Mahoney.

Rayne WATERS’s debut novel, The Angels’ Share, was published by Winter Goose in 2012.

94 James E. OLIVER (TORRÉZ, Jr.), is a founding partner of the five-attorney law firm Durflinger Oliver & Associates in Tacoma, Wash. The firm was established in 2010.

98 Erin Lindsay MCCABE’s novel, I Shall Be Near to You, was released in January 2014 by Crown Publishing. It was featured in the January issues of Glamour and Elle magazines and received starred reviews from Kirkus and Booklist. The novel was inspired by a research paper she wrote for Professor Lisbeth Haas’s U.S. Women’s History class about one of the at least 200 women who fought in the Civil War disguised as men.

11 Kristina VAN CITTERS recently received a master’s in bioethics from NYU and is currently working in clinical research at Cedars-Sinai in Los Angeles. She is forever grateful for her time at UCSC and credits many of her professors with motivating her to continue her education.

CROWN COLLEGE

70 Jeffrey SUE earned his M.S. in computer science at Stanford (1972), then an M.D. at, UCLA (1978). He went on to practice radiology in Stockton, Kauai, and (for the last 20 years) Honolulu. Now retired from radiology, he is doing computer programming for the same radiology group.

74 Rich HOGAN is still on the sociology faculty at Purdue University. He was recently elected chair of the Marxist Sociology section of the American Sociological Association and is preparing to celebrate the 40th anniversary of Marxist Sociology in ASA (August 2014 in San Francisco).

75 Lori JOHNS sends greetings from Brookings, Ore., where she is working as a family nurse practitioner. She retired from the California Army National Guard after 28 years of service and also enjoyed being a “Slug Mom”—her daughter Erin STEPHENS graduated from Kresge College in 2008.

82 James BATEK writes: “After figuring out why I ever wanted to transgender I have returned to cisgender and expect to stay so permanently.”

89 Martin AZEVEDO finally met Julia BERGER (Cowell ’94) after twenty years of sharing most of the same friends, interests, and Bay Area experiences. The couple married in 2012 and welcomed their son Zane in October 2013. Both work in the health care industry by day, and by night pursue creative projects often involving costumes and accoutrements. Martin’s humor writings have appeared in numerous publications, most recently McCsweeney’s online.

11 Marcelino PLASCENCIA has developed Bridgin’, a free iPhone and iPad app that offers financial resources for students.

MERRILL COLLEGE

72 Eric CAIN lives in Portland and produces history documentaries for OPB Television. Recent subjects include Rajaeeeshpuram, Governor Tom McCall, and author/prankster Ken Kesey.

74 Katherine (JAyE) McHale is a doctoral candidate in art history at the University of St Andrew’s, Scotland. Her dissertation focuses on the Italian painters working in 18th-century Britain. Her article “Tiepolo, Inc.: Two Madonnas and the Master’s Hand” will be published in the journal Dieciocho (University of Virginia) in Spring 2014.

77 Joshua PECHTHALT, president of the California Federation of Teachers, has received the 2014 United in Courage Award. The award honors “his unwavering courage as a partner and collaborator in the fight for a more progressive and just society.”

83 Michael LINICK retired in November 2013, culminating a 30-year Army career. He retired with the rank of colonel and is now working for the RAND Corporation in Washington, D.C., as a senior defense policy researcher.

90 Dan GLUESKENKAMP celebrated his first year as Executive Director of the California Native Plant Society.

91 Vince CHHABRIA was confirmed as a U.S. district judge for the Northern District of California in March 2014. He has served since 2005 in the San Francisco City Attorney’s Office.

99 Amber WEST successfully defended her creative dissertation for a Ph.D. in English at the University of Connecticut. She also directed and produced the third annual Puppets & Poets festival in New York City, which she created with Alphabet Arts, the artists collective she co-founded in 2009.

02 Carlos E. ALEMAN is an assistant professor of history at Samford University in Alabama and director of the Latin American Studies Scholars Program. He specializes in the history of 20th-century Central America.

Mostafa GHOUS has been named director of student activities and campus life at Berkeley City College.

03 Cody JANG has worked as a youth developer in San Francisco and Oakland since graduation. He’s now community manager at Vega Football Club, supporting underprivileged players and families by providing access to competitive youth soccer—with the goal of sending all the players to and through college.

05 Justin HOFMAN recently returned from his fourth season working in Antarctica as an underwater videographer and educator with Lindblad Expeditions aboard the National Geographic fleet. This season he did a live underwater broadcast from Cape Horn, photographed Southern right whales underwater, and captured underwater footage of leopard seals in the South Orkneys.

PORTER COLLEGE

74 Lisa JENSEN’s weekly film reviews have appeared in Good Times Santa Cruz, since 1975. Her historical novel, The Witch From the Sea, was published in 2001, and her fantasy novel, Alias Hook, will be published by Thomas Dunne Books in July 2014.

75 Ira HEILVEIL was given an Outstanding PBL Tutor award by the Department of Psychiatry at continued on page 26
The singer-songwriter Brett Dennen (Kresge ’04, community studies) stands out like a bright-yellow banana slug on a brown leaf. He’s unmistakable, with his flame-colored hair, on-stage dance moves, and reedy voice. In the decade since graduating, he’s traveled from the halls of Kresge College to Carnegie Hall, the Bonnaroo camping festival, and the Late Show with David Letterman. He’s gotten the chance to hone his craft, traveling with musicians like Dave Matthews and Jason Mraz, but UC Santa Cruz left him with perhaps an even more important gift—something to write about.

UCSC’s community studies program left an indelible stamp on the lanky, six-foot-four, bespectacled Dennen, who looks younger than his 34 years. “I came from a sheltered environment, not a diverse town—a little cowboy town in the valley,” Dennen said in a phone interview from Venice Beach, where he rested before playing a cruise-ship festival from Miami to Grand Cayman featuring the band Train.

Raised in Oakdale, California (Stanislaus County), he enjoyed being home-schooled but had a jarring experience in high school, which he calls a “failure factory” in a new song, “When We Were Young.” UCSC was a much more nurturing environment. “Santa Cruz is where I first started making friends with people who were very different from me, and the first place where I studied social issues in school, because I had never really lived them,” Dennen said.

Dennen, now touring to support his album, Smoke and Mirrors, spoke of “mind-blowing classes” taught by community studies lecturer Mike Rotkin, and David Wellman, now a professor emeritus in the Social Sciences Division. Rotkin remembers Dennen as “a really good student who understands the importance of art and culture to get people to think critically. And he performed a song in one of my classes.”

UCSC’s influence shows up in Dennen’s best-known songs, including the haunting “Ain’t No Reason,” in which Dennen takes on apathy and social injustice: “Keep on building prisons, gonna fill them all. Keep on building bombs, gonna drop them all.” At UCSC he also began to get more comfortable singing live and finding his voice. “I’m still pretty shy,” he said, “but being up on stage forces me to let my colors out. I have a creative side that needs to be nurtured in a protective environment, and an extroverted side, that comes out in full force. People pay a lot of freaking money to go to shows. I want to be myself and have a good time. I just want the audience to have fun.”

Becoming a Slug was all but inevitable for Dennen, who divides his time between Los Angeles and Stanislaus County. His brother, sister, and three cousins all attended UCSC. Now he wonders what might have happened if he’d gone to a different school and studied in a different program. “Had I gone to an art school and just studied painting,” said Dennen, “I don’t know if I would have been able to really articulate the thoughts and feelings I was having about becoming a man and trying to make sense of my place in the world and all the injustice and beautiful and sad things happening all around.”
For 11 months, Alejandra Vargas and her father lived in one-half of a tiny garage. The room held only a mini-fridge, a twin mattress, and an alarm clock. Her father, an electrician who often worked seven days a week, slept in a blanket on the floor.

Vargas was 17 then, and living through one of the hardest times in her life. She had been diagnosed with Ewing’s Sarcoma, an aggressive cancer that generally affects young people, and it had forced the removal and reconstruction of four of her ribs. But doctors told Vargas unless she had chemotherapy, the cancer might come back.

So Vargas, who was born in Los Angeles, and her father, a naturalized U.S. citizen, left their family behind in Tijuana, Mexico, and moved to San Diego for her treatments.

The $100-a-month garage was all they could afford.

At 25, Vargas is now cancer-free, but the lesson she learned from that time, she says, is what helped guide her into her current work. Today, Vargas is a suicide crisis line program coordinator for Suicide Prevention Services, where 400-500 lonely, lost, or suicidal people call in for help every month.

“I am really lucky to be alive,” says Vargas (Kresge ’12, Latin American and Latino studies, literature), “but not everyone thinks that, or they feel their life is hopeless. I want to help them recognize a little bit of that hope.”

Vargas’s life has mostly been an uphill climb. She was a shy girl whose cancer made her even more introverted. In order to support herself while attending San Diego City College, she worked 20-40 hours a week at the county’s animal shelter. At UCSC, she received a few grants, got loans, and held down two jobs in order to pay for her schooling.

But Vargas says there was a part of her that always wanted to give back to her community—although work and the cancer made that hard to do for a long time.

So when a job overseeing the 80 volunteers who staff Suicide Prevention’s 24-hour crisis line opened, Vargas knew she had found her niche.

While the Centers for Disease Control estimates an average of 105 people a day die of suicide in the U.S., Vargas says she had her own brush with the experience. In college, a friend called and threatened to harm himself. Vargas spent eight frightening hours trying to convince him to live.

“It wasn’t until later that I found out there were things like suicide hotlines,” Vargas says. “If I had know that, I wouldn’t have felt so alone.”

Her work now consists of supporting volunteers who, like she did, help those struggling with hard times and thoughts of self-harm. She also arranges training sessions and does outreach in order to break the stigma and secrecy around suicide so more people can get help.

“I feel like I am definitely giving back to the community that educated me,” Vargas says.

Her supervisor, Assistant Program Director Rosalina Valdez, calls Vargas hard-working, resilient, and determined.

“With everything she has gone through and at her age,” Valdez says, “there is a sense of responsibility, maturity, and a zest for life that is incredibly impressive to me.”

Alejandra Vargas:
A light in the darkest hours

by Peggy Townsend
Were you involved in these clinical trials?

During the 1960s and 1970s, UC Santa Cruz sent students to the Clinical Center at NIH in Bethesda, Md., to participate as subjects of clinical trials and to work as research assistants for these trials. Dr. Laura Stark of Vanderbilt University in Nashville, Tenn., is embarking on a project that will examine the experiences of the “normal control” research subjects in these NIH trials. If you are interested in contributing by speaking with Dr. Stark about your experience at NIH (or if you would like to learn more about this project), please contact her at (860) 685-3205 or laura.stark@vanderbilt.edu.

KRESGE COLLEGE

‘84 Hilary CLAGGETT is senior acquisitions editor for business, economics, and finance at Praeger Publishers, and she completed her first ultra (a 50K) in November 2013. She has run 10 marathons and 20 half marathons in 15 states and is looking forward to adding more trail runs to the mix. J. Phillip DIXON is part of a team producing a documentary film titled Not Forgotten, which tells the stories of American GIs who never returned from Vietnam. The project is featured at kickstarter.com/projects/152583007/not-forgotten Michelle GREGOR’s solo exhibition of sculpture opened in December 2013 at the John Natsoulas Gallery in Davis, Calif. (natsoulas.com). The exhibit was accompanied by publication of a book of her work by John Natsoulas Press. Nancy MORGAN specializes in psychogenic polydipsia and hyponatremia in southern Oregon and northern California.

‘91 Beth LISICK, writer, performer, and independent film actress, is the author of the New York Times bestselling comic memoir Everybody Into the Pool (2006). Her latest book, Yokohama Threeway: And Other Small Shames was released in October 2013 by City Lights Publishers. Peering into life’s cringe-worthy moments, she excavates territory that most would rather ignore, including stories based on her time in Santa Cruz.

OAKES COLLEGE

‘79 John MOORE (Ph.D. ’91) has been a professor of linguistics at UC San Diego since 1992. He is currently provost of John Muir College at UCSD.

‘84 Brad GARDNER has been nominated for ten Emmy awards for directing, producing, and audio since 2004, winning Emmys in 2004, 2005 and 2010. He lives in San Diego and is a music venue production manager and technical director.

‘94 Kristine ASUNCION, after 2 1/2 years working in Haifa, Israel, as a librarian, is now living in Unalaska, Alaska, working in special education and teaching fine arts. “Love being in this special part of the world again,” she says.

‘95 Maria OCHOA has been appointed executive director for development and the foundation at Chabot College.

‘01 Morgan ADAMSON has joined the Macalaster College Media and Cultural Studies Department as a tenure-track assistant professor. Her work brings together film and media theory, documentary and avant-garde cinema, critical theory and cultural studies, critical political economy, and film and video production.

‘02 Niketa CALAME appeared in two productions nominated for NAACP theater awards—The Color Purple and Ain’t Misbehavin’, and The Color Purple won six Ovation awards. She played “Squeak” in Color Purple and “Charelse” in Ain’t Misbehavin.

‘06 Brendan EDGERTON is attending the Yale School of Management and Yale School of Forestry and Environmental Studies pursuing a dual MBA/Master of Environmental Management. His work with Office Depot through the Environmental Defense Fund’s Climate Corps program will be highlighted in the Showtime documentary series “Years of Living Dangerously” airing in April 2014.

‘08 Bryce WINTER is a staff member with Santa Cruz-based nonprofit, Ventana Wilderness Alliance (VWA). As field manager for VWA’s Youth in Wilderness program, he takes area students into the Big Sur backcountry to educate and inspire future generations of wild land stewards and advocates.

‘81 Joanne FOWLEY is a Realtor in Santa Cruz and has just completed a four-volume book about the life of a Nicaraguan/American family. Book one, Cesar’s Wars: The Rise of America’s Special Forces, is now available for purchase.

IN MEMORIAM

‘68 Ruth N. (RAYMOND) Sesser (Stevenson) passed away in July 2013 in Sacramento. She returned to college after being left as the sole provider for a family of five children following the premature death of her first husband. She earned her B.A. in history at 50 and went on to become a well-known Stanislaus County community organizer.

‘76 James WALLACE (Kresge) died in Seattle in August 2013 following a long battle with cancer. After graduating from UCSC, Jim attended UCLA and received a master’s degree in librarianship in 1978. At the time of his death, he was the manager of library technical services for Seattle Community Colleges.

‘83 Dan COGAN (Porter) passed away on November 5, 2013. He learned to love the mountains from his time in Santa Cruz.

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With this issue, we’re starting a new alumni photo submission feature to highlight and celebrate the experiences, travels, and artistic insights of UCSC’s diverse and fascinating alumni.

We’ve selected two inaugural images and included the stories behind them.

(Above) Thomas Webb (Ph.D. ‘80, chemistry) and his wife, Mary Towne Webb (Porter ‘80, art), met while attending UCSC. Their youngest daughter, Sara T. Webb McCune, is also a UCSC grad (College Nine ‘10, psychology). Webb, now a director of medicinal chemistry in Menlo Park, took this photo while the couple visited Sara and their grandson in Portland, Ore., in 2012. They traveled to Sauvie Island outside Portland with the hope of spotting Tundra Swans. They found them.

(Right) Casandra Bergkamp (College Eight ‘10, environmental studies), took this picture in Telluride, Colo., while visiting a friend—another former Slug! She captured the image on a hike to a frozen waterfall.

Send future submissions to review@ucsc.edu. See the rules and guidelines at review.ucsc.edu/submissions.html
Students helping students their why they should give to UCSC’s Undergraduate Scholarship Fund, Dominique Carella tells the story of her life.

“I explain that my parents didn’t go to college, and that I’m relying on scholarships to go to UCSC,” said Carella (Kresge ’15, sociology). “I don’t come from a lot of money, and being at UCSC is a blessing. I want people to know that.”

Carella, part of the student philanthropic organization Slug to Slug, is one of seven student fundraisers who stand in the plaza near the Bay Tree Bookstore rain or shine, clipboard in hand, asking for student donations. The job is fraught with rejection. Passersby often ignore her, and she’s heard her share of “no.”

But when students stop to talk, she engages them: “I tell them: I’m a student, I’m paying tuition, and we need to help each other out,” Carella said.

Clearly, the message is getting across. About a third of the students who chat with a Slug to Slug student fundraiser end up making a donation and giving back.

Founded in 2009, the Slug to Slug program works hard to install a sense of “Slug Pride,” while building a culture of philanthropy among students, educating them on the impact of private support, and teaching them the importance of staying connected and giving back after they graduate.

The organization believes in the principles of paying it forward, or the notion that “philanthropy is a positive feedback loop.” Slug to Slug is different from other student philanthropy groups because it focuses on students supporting their own community, feeling gratitude, and making a conscious decision to support UCSC.

The fundraisers reach out to more than 1,200 students a week and accept donations of any amount. This school year, the students have raised about $3,000 toward undergraduate scholarships and programs on campus through more than 700 donors.

The organization blends generosity with fun. One of its main fundraisers is Slugfest, an annual benefit, and the biggest dance party on campus, with DJs, an appearance by Sammy the Slug himself, and more than 1,000 revelers supporting student scholarships.

Carella started her fundraising career in high school, where she designed and sold T-shirts to support her San Francisco charter school. Now she’s building on those skills at Slug to Slug, which started out as a work-study job. Now she co-manages the program with her friend and colleague, Hannah Klass (Kresge ’15, sociology).

Klass also has a personal connection to the Undergraduate Scholarship Fund. She chose UCSC in part because of the financial aid she was offered there. “I don’t receive a contribution from my family,” she said. “I’ve worked two jobs for most of the time I’ve been at UCSC.”

Klass runs education and outreach for the program, finding volunteers and representing Slug to Slug at community events.

“People say college students are broke and they won’t give,” said Klass, but she’s learned to question this stereotype. Last year, she met a group of students at the plaza who said “hi” to her every day, but never donated. The last day of class, they walked over and handed her a $20 bill.

“So many students are ready to give. So many students on our campus are so supportive,” said Klass. “Seeing that aspect of it has been amazing.”
I made a planned gift to ensure the Smith Renaissance Society will carry on after my lifetime.

—BILL DICKINSON
(Cowell ’68, philosophy)

Bill has been on his own since age 16. When he was accepted to UCSC, he was on cloud nine. The people at UC Santa Cruz helped him make his way in life, and he was motivated to try to do the same for others. Bill paid it forward by creating the Smith Renaissance Society, a living memorial to Cowell’s founding provost, Page Smith, and his wife Eloise. The Smith Society supports students from foster homes and those without essential parental support. He created a Charitable Remainder Unitrust through the sale of real estate that offers him income during his life and will support the Smith Society in the future.

A Charitable Remainder Unitrust is a type of Life Income Gift. These gifts can fulfill philanthropic goals while also bypassing capital gains, offering an income stream and a charitable deduction. For more information, visit plannedgifts.ucsc.edu

For information on creating a legacy of your own at UCSC, call (831) 502-7112. If you have included UCSC in your estate plans, please let us know.
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Mary A. Holmes (circa 1966), a founding member of the faculty of the University of California, Santa Cruz, and a beloved artist and art historian.