

UTAH STATE

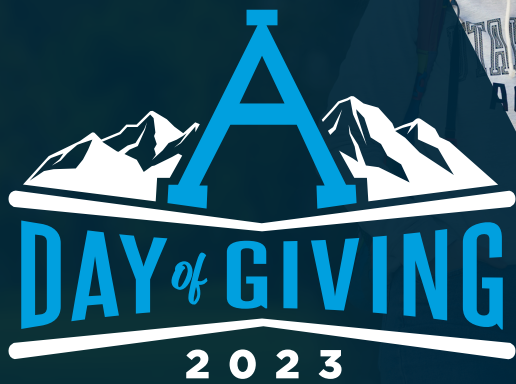
FALL 2023



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ELIZABETH CANTWELL HAS
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Embracing the Mission

I am pleased and very excited to join the Aggie Family as Utah State University's 17th president. USU has a long tradition of academic excellence, impactful research, and continuous engagement with state and local communities — all of which serve to elevate the state of Utah. I'm excited to build upon that solid foundation.

As a public land-grant university, it is our obligation to make ourselves relevant for the future into which our students are moving. The model for public higher education is changing — adapting to the pace of change in the world around us, and USU is already meeting that moment in numerous ways. For example, our Statewide Campus model is unique and provides a powerful platform across Utah where we offer multiple academic and class delivery modes, as well as new modes for student engagement in teaching and learning. For students across the state of Utah, we are making a difference.

And we're not done. As the world shifts rapidly, we will ensure the modern land-grant university that we represent addresses the challenges and opportunities of the 21st century, aligning with the core values and pioneer spirit of Utah. We will ensure that our land-grant mission:

- **Embraces** a culture of innovation and entrepreneurship
- **Emphasizes** meaningful engagement and collaboration with regional communities
- **Promotes** land, air, and water stewardship
- **Prioritizes** accessible and high-quality education that equips students with the skills and knowledge needed to succeed in the modern workforce
- **Cultivates** a sense of civic duty, encourages real-world and community service, and prepares graduates to lead



Elizabeth Cantwell visits the University of Arizona's San Xavier Underground Mining Laboratory near Tucson, Arizona. Prior to coming to USU, Cantwell was the senior vice president of research and innovation at UA. Photo courtesy of President Cantwell.

My mantra has long been “we must embrace complexity.” Higher education is a complex system that has historically been able to undergo changes and then stabilize. However, it is presently unclear how adaptive the current system is. I look forward to working with the talented individuals at this university and within the community — students, faculty, staff, and alumni — to put the adaptive capabilities in place that will allow USU to achieve its potential.

Part of adapting to meet the needs of our current and future students is learning what those needs are by engaging with our local and regional communities. Through these interactions, we can better understand how to grow the economic and societal value of what the university does. We will continuously work with regions and communities to elevate them

and make them stronger, which in turn empowers students who are going to come to our university and bring their own creative ideas back to their communities: a virtuous cycle of impact.

I look forward to learning from all of you and working together to manifest the exciting future we all know is possible.

Go Aggies!

Sincerely,
Elizabeth Cantwell
President, Utah State University



Tim Olsen graduated from USU in 2009 with a bachelor's in print journalism and then earned a master's in magazine, newspaper, and online journalism from the S.I. Newhouse School of Public Communications at Syracuse University in 2011. He's worked at USU since 2014, joining the strategic communications team in April. He's pictured here with his wife, Tara, and children (left to right) Taycee, Taytum, T.J., and Taylor. Photo by Levi Sim.

Ready to 'Meet the Challenge'

Allow me to introduce myself. Though born in Southern Utah, I grew up in Cache Valley and am a lifelong Aggie. At the risk of dating myself, one of my earliest memories of USU is watching in rapture as fans pulled down the goalposts in 1993 after the Aggies defeated BYU in football, 58–56, in one of the most memorable games in program history.

Maybe you purchased a one-foot section of that goalpost for \$58.56? If so, I'd love to hear your memory of that day.

My family has always been an Aggie family. My Grandma and Grandpa Olsen have been USU season ticket holders for more than 60 years, and my parents for nearly 40. However, despite growing up attending various Aggie events, holding two degrees from Utah State, and having worked for the university for nearly a decade in various capacities, it wasn't until recently when I moved into this position that I realized how deep those roots go.

In the late 1950s, my grandmother, Norma June Thompson, was a student at USU. She was an editor for the *Buzzer*, the university's yearbook, and a member of the Sigma Kappa sorority. As the head editor in 1960, she oversaw the creation of that edition of the yearbook. In her editor's note that year, she shared an appreciation, "To you, for being part of Utah State University ... our code, our institution, our way of life."

I would like to express similar appreciation in this note. Thank you for being part of Utah State University. If you're reading this, it's likely because you're an alumnus, faculty member, staff member, or student. If not through one of those avenues, then maybe you're part of the Aggie family through simple proximity to our Logan Campus or one of our amazing Statewide Campuses.

Whatever your USU connection, I appreciate your readership and will strive — along with my small and talented team — to continue sharing powerful stories and producing award-winning content that highlight what it means to be part of Utah State University and the Aggie Family — our code, our institution, our way of life.

Timothy R. Olsen '09, '18 M.B.A.
Editor, *Utah State Magazine*

Utah State University-trained economist Charlie Christensen has spent more than two decades conducting research in the shadow of Mount St. Helens in southern Washington. Photo by Levi Sim.



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As a student, Reagan Wytalucy studied the origins of Southwest peach orchards. Now, as an Extension agent in San Juan County, she’s helping to restore both the peaches and her culture.

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Linda King Newell was many things to many people — an artist, an advocate, an author — but to her family, she was all of those things and more.



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The Mountain Man

A cross-country trip with friends led to a decision to attend college in the West. And that decision led to a four-decade-long career studying Mount St. Helens.

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Where is This?



Photo by Levi Sim.

First right answer wins Aggie gear.
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On the Cover: New USU president, Elizabeth Cantwell, sees the future of higher education in the West where “we are still norming, forming, and storming.” She says Utah State is uniquely situated to deliver on its land-grant mission. Photo by Levi Sim.

THE RETURN OF TRANQUIL WATERS

The Tanner Fountain and Plaza area just outside the Taggart Student Center has been a favorite campus gathering spot for more than four decades now. In May, after a year of renovations to fix leaky pipes, the area opened again — just in time for the university’s 136th commencement ceremonies.

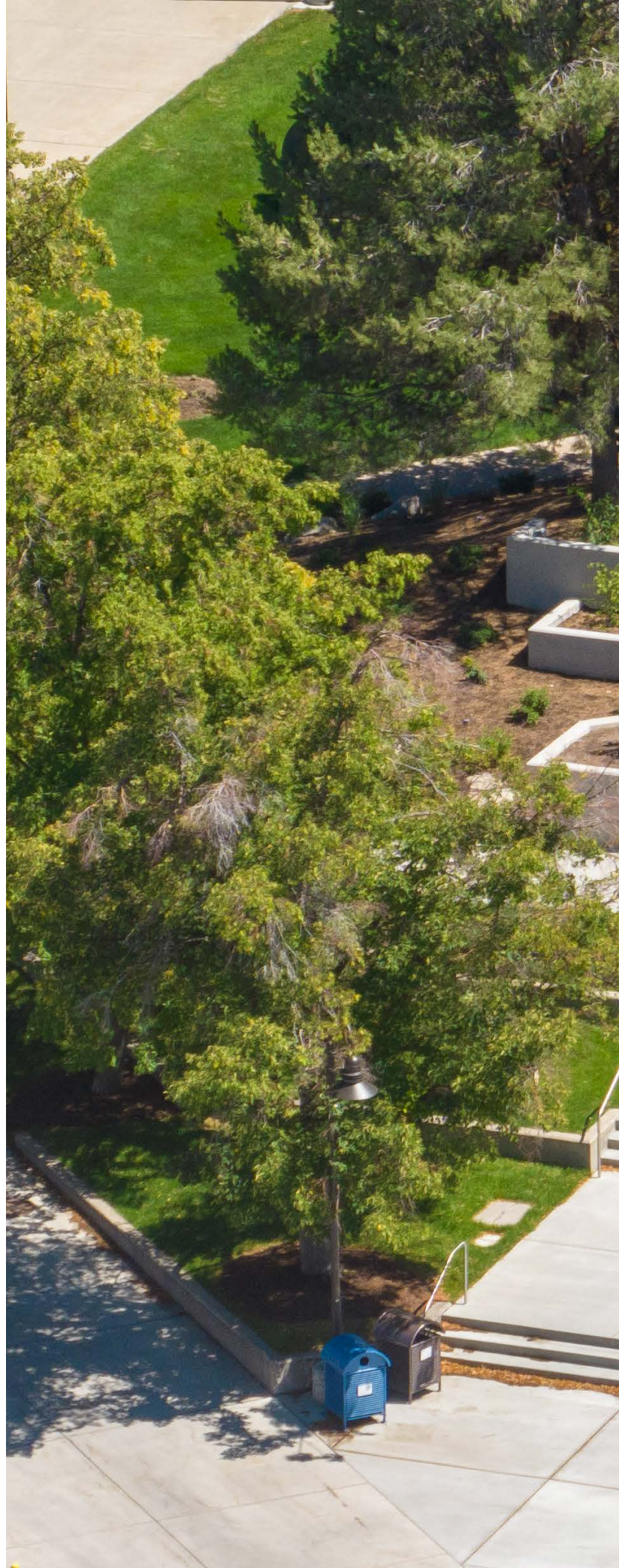
“I consider the Tanner Fountain to be a campus landmark much like the ‘Block A’ or the sculptures, ‘Meet the Challenge’ and ‘SNAFU’ [the yellow french fries],” says Ray Cheatham, the Taggart Student Center operations director. “I am sure that a lot of people have memories associated with the fountain. We are so excited to have it operational once again and the surrounding area open for events.”

Originally dedicated on May 31, 1980, the fountain and plaza area has been the stage for class pictures, farmers markets, pep rallies, and various other student and community events. The fountain also underwent extensive work in 2007 to update the pipes. This time, though, the updates included a complete replacement of the pump room and pump equipment.

Both the fountain and plaza were originally donated to the university by the O.C. Tanner Foundation. **A**



Above: View of the Tanner Fountain and Plaza, 1980. It was dedicated May 31, 1980. Photo courtesy of USU Special Collections and Archives. Right: Reopened in May of this year, the Tanner Fountain located on the south side of the TSC has been a tranquil part of campus for more than 40 years. Photo by Levi Sim.







Reagan Wytsalucy studied the origins of Southwest peach orchards during her time as both an undergraduate and graduate student at USU. Now she's working to restore native peaches to the landscape. Photo by Levi Sim.

PUTTING DOWN

ROOTS WITH NATIVE PEACHES

By Kristen Munson

NAVAJO PEACHES ARE A BIRTHRIGHT, AN ANCIENT FOOD SOURCE, AND A SYMBOL OF RESILIENCE. AT LEAST, THEY ARE FOR REAGAN WYTSALUCY.

According to Navajo, or Diné, belief, Southwest peaches were tended by the Anasazi. For centuries, the peaches were a food source for the tribe until the trees were systematically torn from the landscape in an extermination effort led by the United States Cavalry.

Growing up, Wytsalucy '16, M.S. '19 was told by her father, Roy Talker, whose grandfather, Hoskinini, told him, "The peaches were always here." And one day Talker suggested to his daughter, "Maybe you can bring the peaches back." That led Wytsalucy to study the origins of Southwest peach orchards as both an undergraduate and graduate student at Utah State

University.

"During the Long Walk, some Navajo avoided capture and raided U.S. forts," she wrote in her 2019 thesis *Explorations and Collaborations on Two Under-Recognized Native American Food Crops: Southwest Peach (*Prunus persica*) and Navajo Spinach (*Cleome serrulata*)*. "One of these individuals was my great-grandfather, Hoskinini. ...

Through oral tradition, my family has passed down a description of where Hoskinini fled, explaining that it was like an oasis, with many natural springs and waterways, supplying water to yearlong grassy groves. Peaches were present at this location."

Her thesis documented the oral history of the peaches in the Four Corners region, as well as the uses of Navajo spinach — a plant harvested for food and medicine by Native Americans for centuries. Historians suggest they are remnants of trees first brought to the region by Spanish explorers.

Some Native American tribes say otherwise.

Wytsalucy's research took her to the Navajo, Hopi, and Zuni reservations and to remote corners of Arizona, Utah, and New Mexico in search of historic peach orchards. With permission from the tribes and their elders, she and her advisors collected samples from groves nestled on mesa shelves and tucked deep inside canyons accessible only by foot.

Using dendrochronology and backdating the groves using inbreeding estimates, the orchards could have been isolated for a period of 240 to 480 years, Wytsalucy explains.

Genetic testing did not locate a common ancestor, either. Most of the peach trees Wytsalucy sampled are not related to any modern cultivars found in the United States since the colonists arrived and began planting fruit trees. While some peach trees have cross-pollinated with peaches introduced to the region, most have not.

“We can see how their genetics are similar to each other, but it’s just not connecting with anything that has been brought to the United States,” Wytsalucy says. “And we even had peaches from China, from Mexico, from Syria, from Spain — some common founding ancestors of peach cultivars today ... and there is just no relation in any capacity because they are so inbred.”

In 2019, *Utah State* magazine ran a story about her work. Two years later *Atlas Obscura* profiled her effort to restore Native peaches to the landscape. Afterward, readers from around the world contacted Wytsalucy in hopes of securing seeds to plant. Mysteriously, people from Iowa, Wisconsin, and other parts of New Mexico emailed suspecting that they, too, may have similar peaches growing in their states. The peaches have the same pale white flesh and an unknown backstory.

Wytsalucy says it’s possible that each cluster may be derived from seeds carried across Indigenous trading routes. Perhaps, like corn, peaches can be used to tell a larger migration story.

“We are talking back in the Chaco Canyon days, when that route was really active, between Central America to the northern parts of the Americas,” she

says, adding that this is when peaches start to appear in the oral histories and ceremonies performed by Southwest tribes.

“In a lot of these prayers and things, we don’t add to them,” she says. “They are what they are. And they have been repeated the same for centuries since we were given those prayers. We don’t change, I guess to say.”

In 2021, Wytsalucy was awarded a grant from Utah Department of Agriculture and Food to continue a broader genetic analysis of the peaches. But it’s an endeavor that takes time. Unlike modern cultivars, Southwest peaches are grown from seed. They are not grafted or pruned. After collecting the seeds researchers need to grow them into fruit-bearing trees, which takes at least three years.

Wytsalucy’s research has found the root structure of Southwest peaches to be more drought-resistant than commercially grown varieties. She has partnered with the New Mexico State University Agricultural Science Center at Farmington, located in the middle of the Navajo Agricultural Production Industries land, to cultivate the trees and produce a population large enough to perform a worldwide genetic analysis.

The testing will include peach samples from the Midwest, too. The results could potentially begin to illustrate how people and peaches moved around the continent.

“Some early scientific literature suggests there were some groves on the East Coast that (researchers) thought were land-raised, they were not planted by the pioneers,” Wytsalucy explains. “I think there is more of a story that is starting to come out.”

In the meantime, she can’t shake this inkling that maybe her dad has been right all along.

SINCE GRADUATING, Wytsalucy has worked as an Extension agent in San Juan County. She still makes the trek north to Thatcher to tend the peach trees she grew at the university’s research farm, but she has begun putting roots down of another kind. Wytsalucy is entrenched in the hard and necessary work of building a sustainable food system for the people in the Four Corners region.

“It’s not just the peaches that I am working toward anymore down here in this job,” she explains. “It’s creating sustainability in the communities, and

The research orchard produced a significant crop for the first time in 2021. Since then, friends and family have helped with the harvest.

Wytsalucy’s mother, Donna Talker (middle), and aunt, Sandra McGill (right), help her son load a box. The nonprofit Da’kah Hotsa, which roughly translated means “huge garden” in Navajo, helps with peach seed distribution and making collective decisions.

Photo by Levi Sim.



this is the foundation of that. It's one of the first crops that we can contribute and say, "This is a crop from our heritage, and this is going to allow our communities to persevere."

The first people to receive Native peach seeds are Native growers, and Wytsalucy is moving slowly to expand distribution for both practical and ethical reasons. First, it takes years to produce the peaches in quantities large enough to distribute and to grow them in a way that is culturally respectful and retains the peaches' genetic line. But for Wytsalucy, giving the seeds to people outside the region needs to be a collective decision.

"I'm just here to preserve this so it's accessible to our people — that's the overall, the number one goal," she says. "There is so much that we don't know about these (peaches). They are literally isolated. Do they have disease resistance? ... There are a lot of things that we are considering and I'm just one Extension agent."

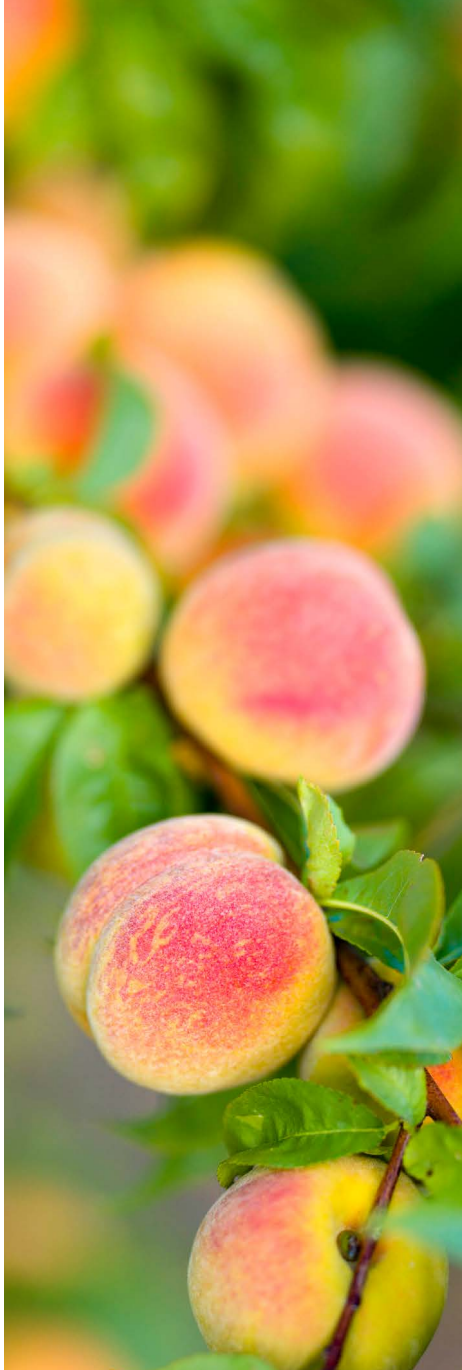
She is starting a nonprofit — Da'kah Hotsa — to bring help with the process and make decisions collectively. The name roughly translates to mean "huge garden" in Navajo and reflects the tribe's connection with the earth and their creator, Wytsalucy says.

Last September, she and her family, as well as USU student and staff volunteers, harvested about 50 bushels of peaches for processing to fund a scholarship for Native American students and the Nutrition, Dietetics, and Food Science Department. About half of the peaches were brought back to Blanding and handed out at the 2022 Zuni Fair, with some boxes going to Native growers.

"Not only do they have the food, but they also have the seed to start growing," Wytsalucy says.

Much of Wytsalucy's Extension work focuses on gardening education and has involved establishing community garden programs. A quarter of the population in Bluff volunteered to build a community garden site in 2021.

"Our people used to know how to live off the land and sustain ourselves," Wytsalucy says. "There are a lot of young Native Americans in this area that are trying to go back to growing traditional food crops again."



Southwest peaches are grown from seed and take time to mature. It takes at least three years before they grow into fruit-bearing trees. Smaller than commercial varieties, these Anasazi peaches may be unrelated to peaches which came to America with Europeans. They could be a uniquely native fruit. Photo by Levi Sim.

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— REAGAN
WYTSALUCY

People like Joshua Toddy.

He is the operations manager for the Hozho Voices of Healing Center in New Mexico, an organization aiming to revitalize Diné culture and improve food sovereignty and economic independence in the region. Toddy, 38, has gardened since childhood. He grew up in government housing in Many Farms, a pinprick of a town in northwestern Arizona on the Navajo Nation. One of his neighbors was a master gardener.

"If you've ever been out this way, it's like Monument Valley — it's dry, barren," Toddy says.

His neighbor made it an oasis. Toddy's home was surrounded by apricot trees and chokecherries, commercial peach trees, and a strawberry patch. He remembers the community harvesting corn together, steaming it, and enjoying it together the next morning.

But he never knew about Native peaches.

In September, Wytsalucy met him near Gallup with two boxes of Native peaches. They are smaller, like apricots, with white flesh and a light red blush on the skin.

"I've been growing my own food for a long time, so I know what good, locally grown, fresh, in-season food tastes like," Toddy says with a smile. "When I got these peaches ... my first thought was 'This is what my ancestors tasted. This flavor, this peach I'm holding, a lot of people don't know this anymore. It's gone.'"

He knew it was something he wanted to share with his community and the world off the reservation.

Toddy has devised a seven-year plan for germinating and planting Native peaches

at the Hozho Center. He's also using TikTok to spread his knowledge of how to successfully grow crops in what seems to be a stark, unforgiving environment. He wants to show people, particularly other Native Americans, that returning to a more traditional diet is possible. And he's not talking about fry bread.

Like Wytsalucy, Toddy is joining younger generations to revive Native American growing practices. Prior to his position at the Hozho Center, Toddy studied industrial engineering and was printing metal parts for NASA. But he would sit at his desk and dream about his garden.

During the early waves of COVID, he witnessed classmates going hungry because they didn't have enough food. And as older Native Americans were among the groups most devastated by the disease, it emphasized how he could no longer wait for things to change. The death of tribal elders severed linkages between the old ways.

"It is up to us now to continue these

traditions to keep this knowledge alive," Toddy says. "The term 'food desert' is thrown around a lot, but we don't live in a food desert, we just don't know. We don't have that knowledge."

He has big plans for the Hozho Center. Over time, he hopes to expand into a regional food hub that can provide area schools and nursing homes with fresh produce.

"We are going to be an example of what's called an agropastoral community," he says. "We are going to grow a lot of food, but we are going to be doing it sustainably and we are going to do it working with the land not against it. Farm the way we used to farm."

But the site needs land restoration from years of overgrazing cattle. Sheds and fences need rebuilding. And of the numerous structures on site, only two are salvageable. There is much to do to even to begin farming.

Toddy's to-do list is long: bring back the Navajo-Churro sheep; begin a seed bank and share seeds with other tribes;



Wytsalucy (right) and Alex Piechowski-Begay (left) '16, a farm manager for USU Extension in Monticello, tend the community gardens at St. Joseph's Episcopal Mission Church in Bluff, Utah. Wytsalucy says her people used to live off the land and many young Native Americans in the area are trying to grow traditional food crops again. Photo by Levi Sim.



“IT IS UP TO
US NOW TO
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KNOWLEDGE
ALIVE.”

— JOSHUA
JODDY

build catchment ponds, swales, and berms to ready the land for dry farming; grow a food forest with wild onions, asparagus, and parsley where visitors can come and graze as they walk; plant peaches.

“I see the peach orchard way up tucked up high in the mountains, flourishing,” he says. “And I really see the community coming out. We will have a harvest workshop, people can come and harvest as much peaches as they want, and we can preserve this food. This is what I see.”

Wytsalucy has a similar vision. Hers involves young people becoming the force growing the fresh fruits and vegetables on tables. But she wants them to learn more than just how to grow food. When Native children are taught how to grow corn, a sacred crop, they are also being taught the foundation for how to live a good life, she explains.

Southwest peaches are a living metaphor for the process of slow growth needed to cultivate seeds and a mindset of reconnecting to the land. A mother of three small children, Wytsalucy knows

Sharon Begay helps weed the raised boxes at the community garden at St. Joseph’s in Bluff. Each box is equipped with a drip irrigation system to mitigate evaporative water loss. Photo by Levi Sim.

the challenges of getting young people interested in the physically demanding work of horticulture. She is developing teachings that use both technology and stories that connect Native youth to their ancestors to spark interest in growing food. Extension staff are trying to devise transportation workarounds for kids who want to travel to the gardens but can’t.

Wytsalucy pauses to reflect on a journey she feels has been “divinely guided.”

“I know I am supposed to be here,” she says. “The peaches, it is the start of everything, and it is the foundation for why all of this exists, but . . . it’s like a very small aspect of what I am trying to create down here.” **A**

UNBRIDLED IMPACT

THE WICKED PREDICAMENT OF WILD HORSES ON PUBLIC LANDS

By Lael Gilbert



One of Utah's wild mustangs stands alone in the Central Utah desert. Photo by Levi Sim.

Perhaps you were in a movie theater in the late 1970s, as a sunburnt boy used his pocket knife to cut through a tangle of rope binding a jet-black stallion on an abandoned beach.

You might have witnessed the kid bonding with the animal over sun-drenched days, and finally daring to grip a fistful of the horse's midnight mane, sliding a skinny leg over its muscled back and hoisting himself to mount. Maybe you, like me, fell in love at that moment. Not with the kid ... with that horse.

If the movie *The Black Stallion* didn't thrill your young soul like it did mine, there are plenty of other horse stories that perhaps did, each leveraging that undeniable emotional bridge connecting horse and human. Graceful and intelligent, affectionate and independent, horses are astonishingly easy to love.

The bond goes deeper than fiction, of course — horses are an icon of the American West. But even as cultural connections to tasks like herding and plowing fade for most of us, our bond to the horse seems to endure. People *really* care about horses, even when they don't have much experience with them. This makes the management of wild horses, very real animals currently eating and breeding their way across public lands of the Western U.S., a very difficult task.

Last year 82,000 free-roaming horses and burros, all protected by a strict federal mandate, lived on public lands.

"Many people aren't even aware that wild horses exist, let alone that they've become a major management



YOUTH MOVEMENT: 4-H Extension's Mustang Camp Awarded BLM Grant • By Timothy R. Olsen '09, '18 M.B.A.

The wild mustang is synonymous with the idyllic picture of the American West. Red rock canyons, sage covered hills, and cowboys on the wild frontier are embedded in our country's very persona. Their iconography perseveres today as the mascot for sports teams at every level, and it even adorns one of Ford Motor Company's most iconic cars.

However, despite their prominence in both our collective past and present, it comes as a surprise to many that horses aren't native here.

In Utah, it's estimated there are nearly 4,000 wild horses and burros living in 22 herds — part of an estimated 83,000 animals living throughout the West. Unchecked, these horses and burros have the ability to double in population every four years. What will likely not come as a surprise, however, is the management of these animals is a hotly debated topic.

"I think one of the biggest things is just the reality of the horse situation," says Eric Thacker, range management specialist for the USU

Extension. "I think, if people are disconnected from that issue, it's easy to look at it from the outside and just assume ... I mean everybody likes horses. I like horses.

"Having horses is something that's an important part of our heritage in the West. But I think just placing some reality around the need to manage horses ... and how we do that is very important — especially in the relatively fragile ecosystems where they live."

Building a better understanding of the reality of the wild horse and burro situation has long been a goal of Thacker and Jessie Hadfield, a professional practice Extension assistant professor who is also the state 4-H horse and livestock specialist. Those two are part of a nationwide group called the Free Roaming Equids and

While attending the Mustang Camp, a young girl views a herd of wild burros at the Bureau of Land Management's holding facility in Axtell. Photo by Asher Swan.

issue on public lands in the West,” says Nicki Frey, a USU wildlife biologist studying human-wildlife conflicts. “It’s easy to imagine wild horses roaming the grassland in Wyoming or Montana, but the vast majority of these herds actually live in fragile desert ecosystems.”

Nevada is home to more than half of the total wild horse populations in North America, and Utah is home to 22 herds.

“There are too many horses and burros in some areas,” says Eric Thacker, Extension range specialist from the Quinney College of Natural Resources at USU.

“The arid West simply can’t support excess numbers of the animals. Dry landscapes have limited forage and offer meager water. What horses take from the land in those places directly competes with the needs of native wildlife and livestock.”

The well-intentioned law that protects wild horses, The Wild Free-Roaming Horses and Burros Act of 1971, was an outcome of a major public letter-writing campaign that occurred just a decade before *The Black Stallion* hit theaters. However, the modern application has become mired with modifications and curtails certain actions to control horse populations, including euthanasia, unrestricted sale, and slaughter. This has allowed herds to increase exponentially, putting land managers in a seemingly unwinnable bind.

The horses and burros that live in the West today aren’t native to North America. Their nearest horse-like ancestor went extinct about 10,000 years ago. The modern line of equids are descendants of animals that were domesticated about 6,000 years ago in Asia and Europe and



An estimated 3,756 wild horses and burros call Utah home, nearly twice the appropriate management level, according to the BLM. Photo by Levi Sim.

were introduced to North America by missionaries and explorers beginning in the late 1400s.

Horse digestive systems are not as efficient as ruminants — animals like bison, deer and sheep — so horses need to consume about 20% more forage than a ruminant of similar body size to survive.

Natural predation also isn’t a solution to curb a hungry horse population.

“Horse habitats have limited overlap with any predators capable of taking down big animals,” said David Stoner, a wildlife ecologist at USU who studies the topic. “A few smaller herds live in wood-

ed, mountainous areas and share space with cougars, but it’s not something you could rely on to limit large populations over vast expanses.

“Horses that live in the sparsely vegetated desert basins are largely immune from cougar predation.”

Slaughter and euthanasia, once used to control animal populations, are not palatable options for most of the modern public, Thacker says. There are additional concerns that horses sold through unrestricted sales will end up in slaughterhouses.

And now, protected by federal legislation, with ballooning populations, wild horses and burros are teetering on the edge of crisis with some animals at a real risk of death by starvation or dehydration.

Unchecked herds are also tough on natural ecosystems, especially during extended drought. Hungry horses demolish plants, compact soils and damage fragile river and stream environments. Meanwhile herd numbers continue to double every four years. Managers tasked with the care of both public lands and the health of the herds are working diligently to respond — but there are just no easy answers.

“THE REAL CHALLENGE IS CONVEYING THE MAGNITUDE AND CONSEQUENCES OF A PROBLEM THAT LARGELY AFFECTS RURAL AMERICA TO A PUBLIC THAT IS SATISFIED WITH THE HOLLYWOOD VERSION OF THE STORY.” – DAVID STONER

Ecosystem Sustainability network, or FREES, which largely works towards the goal of “healthy humans and wild horses on healthy Western landscapes.”

As the chair of the youth committee for FREES, Hadfield was tasked to come up with a way to educate youth on what she calls a “wicked problem.” The brainstorming session that followed that directive — along with the help of a \$30,000 mini-grant from USU Extension — ultimately led to the creation of the Mustang Camp. The camp is an opportunity for youth to view and learn about Utah’s wild horses and burros on the range, as well as at the Bureau of Land Management’s holding facility in Delta.

Having recently finished up the third year of camp this past summer, the program’s seen roughly 100 kids come through in total.

“I think the most impactful thing they learned is we care about the wild horses, but the wild horses are not the only animals out there that deserve our respect, care, and stewardship,” Hadfield says. “We take them out onto the range and show them this is not an issue of the rancher versus the wild horse. This is the fox and the hawks and a variety of wildlife out there that are being impacted by the mismanagement of the wild horses. Every single kid comes back and they’re like, ‘What can we do to help to manage the land better?’”

As part of the camps, Steve Price, the director of USU’s Carbon County Extension office, helps guide the kids through various activities and challenges them to lead problem-solving discussions. They use range management equipment to clip grass and other plants to estimate available feed, review available water sources, go over growth rates and various other factors, and then plug all of that information into basic probability models. As they do, the seriousness and complexity of the situation quickly becomes evident.

“You can tell that once they start getting the science, they get to see everything, we’re taking them through the activities, that they’re thinking less at an emotional level,” Price says. “You

can tell they’re really trying to think critically about what is the long-term solution — and they come up with great ideas. But there’s a lot of politics around this stuff, too, so we also have to consider those human dimensions.”

Thacker says he remembers a couple years ago some kids sent a text to their dad telling him to bring the trailer when he came to pick them up because they wanted to adopt a couple of the burros. Similar stories have cropped up each year of the camp, and that impact isn’t going unnoticed.

This past October at the FREES Summit in St. George, Hadfield presented data the team has gathered through surveys during the first two years of the camp. After the presentation, she says she was approached by a couple of people involved with the BLM at the national level letting her know the Bureau had some funding they thought her Mustang Camp program would be a great fit for.

Hadfield and the group applied for, and recently received, a grant of nearly \$900,000 “to not only continue this program in Utah, but to spread it across the nation,” she says. “Basically,

they want us to eventually have this same camp being run in every state that has wild horses.”

Despite all the noise surrounding wild horse and burro management, Kalen Taylor — an assistant agriculture professor with the Millard County Extension office — says the goal is really to give the kids a science-based understanding of the data so they can make an informed decision.

According to BLM estimates, Utah’s appropriate management level is a population of slightly less than 2,000 animals. With the current population estimates, that puts the state at nearly double the desired level. Due to current legislation, though, no animals are being gathered this year except in emergency cases due to things such as extreme drought or fire. Those conditions are unlikely in Utah this year.

“Most of these kids that are coming through have never seen a horse on the range before,” explains Taylor, who is also one of the core members that organizes and runs the camp every year. “About 90% of them when they come in say that they think the only management practice that needs to be adopted



At the two-day Mustang Camp, attendees learn about the science of range management and the complexity of the wild horse and burro situation. Photo by Asher Swan.

Part of the challenge, and part of the promise, is how much the public cares about horses.

“Reconciling romantic ideals with the reality of feral horses on sensitive desert rangelands is a socially intractable problem,” Stoner muses. “It’s hard enough to figure out how we do this non-lethally, humanely, and sustainably. But the real challenge is conveying the magnitude and consequences of a problem that largely affects rural America to a public that is satisfied with the Hollywood version of the story.”

Hard enough, it turns out, that there is a voluminous amount of misinformation circulating with the high-stakes emotions at play. It takes an incredible investment of time and patience to understand all the factors at stake and bridge the various philosophical and practical divides that exist among stakeholders.

Not least of these is budget. Commitment to humane strategies comes at a literal cost. Managers left with limited options have to choose strategies that are expensive, controversial, and of limited practicality.

Managers at the Bureau of Land Management organize roundups every three to four years on the agency’s designated horse management areas. These are major operations and are completed most safely (for human and horse) and efficiently when aided by helicopter, according to Jay D’Ewart, a horse and burro specialist from the BLM.

Horses can be gathered from no more than a 10-mile radius to avoid undue stress. They are pushed from the air into temporary corrals, or lured there with food, then moved to holding facilities and given veterinary care.

This strategy isn’t without its critics, and once horses are in captivity, things still aren’t simple. Managers must choose from three options: using a fertility control vaccine (which lasts just one year out of a potential 20-year reproductive lifespan) and releasing animals back into the wild (depending on the area’s legally-mandated carrying capacity), working to find adoptive homes (for tens of thousands of ungentled animals), or moving the horses into long-term holding areas to feed them for the duration of their long lives (up to 25 years).

In 2022 the BLM and the U.S. Forest Service gathered 22,000 wild horses and burros off public lands — the most ever in one year. This is, in no way, a strategy that can be sustained. Approximately 61% of the BLM’s \$138.5 million horse and burro management budget went directly to caring for horses and burros already in permanent holding facilities that cannot be adopted. Meanwhile, herds continue to grow — often at rates exceeding 20% each year — and the process will soon need to begin again, gobbling up an ever-greater percentage of the resources.

Adoption of wild horses is highly encouraged and financially incentivized by the BLM, but there are only a finite

number of handlers with the knowledge and resources to give a thousand-pound ungentled animal a safe and comfortable place to live.

Because the management of wild horses is so emotionally charged, finding solutions to satisfy every stakeholder is far harder than it might be for other natural resource conflicts, Stoner says, but experts at USU are still determined to make headway.

They’ve established a group that embraces the complexity and tension of the issue: The Free Roaming Equids and Ecosystem Sustainability (FREES) Network. The group includes more than 100 stakeholder groups from across the region. It brings people with diametrically opposing viewpoints face to face to work toward realistic solutions, to build relationships within the network, and to improve communication.

It’s often a tense environment when all the players share a room, as they did at a recent event in St. George, but coordinators witness some progress every time they meet. The biggest challenge is building trust among everyone who cares so fervently about the issue.

A new open-access model called PopEquus, developed by the U.S. Geological Survey, shows promise to further the conversation. It allows users to virtually practice wild horse management with a chosen set of priorities in place. They are able to set goals for herd size, turn on strategies like fertility control, moderate costs, and watch the theoretical horse populations change along with their budget. Anyone can use the information to compare possible management strategies, allowing value-laden decisions to move beyond the purely theoretical.

“The predicament of wild horses and burros is a complex one, and sustainable management will only be accomplished when the public is aware of all the financial and ecological tradeoffs that go into these issues and accepts some responsibility for the consequences of their stated management preferences,” Stoner says. **A**



In 2022, the BLM’s wild horse and burro budget was more than \$138 million, with over 60% of that spent on care for animals already in holding facilities. Photo by Levi Sim.



Though not native to the area, wild horses and burros are protected by legislation and can double their population every four years.
Photo by Levi Sim.

is nothing basically. They think that [the animals] should just manage themselves and everything will be fine. But as we observe forces on the range, talk about body conditions for how much feed they need, and how quickly they reproduce, the kids really change their tune quickly.”

Now, due to the success of the camp and with the help of the BLM’s grant funding, the Mustang Camp is looking to grow. Not only in Utah, but into every state in the West that is home to wild horses and burros.

Hadfield says the goal is to add 10 additional camps over the next five years throughout the West. Along with that, they want to continue expanding the camp in Utah by adding multiple day camp options to go along with the current overnight offering. She says they’d like to limit each camp to roughly 20 participants,

because many more than that and they become less effective.

Tammy Pearson is the Beaver County commissioner, a rancher, and sits on the national BLM Wild Horse and Advisory Board. She’s attended and spoken at every camp and is a big fan of what the camp is trying to accomplish.

“Utah State has always been very innovative. They’re not shy about tackling hard issues,” she says. “And if you tackle hard issues in the right way, you find solutions. ... They’re thinking outside the box. We can’t continue to do the same thing that we’ve done.”

Despite the success of the camp, there’s a lot of work ahead — both in rolling out the Mustang Camp to other states and in addressing the wild horse and burro issue in general. Taylor says, with a tone of resigned determination, this situation is unlike-

ly to be resolved during his lifetime. He and the others only hope their work can help to better prepare future generations to deal with the task.

“Getting to see those kids work out the science and practice with us, and then getting to take them out on range and see those herds stampeding and just watching them — I mean, it takes my breath away, and I’ve seen that a bunch,” Price says. “No matter what happens, that is just a super cool experience for those kids. I love wild horses, I love horses in general, and that’s a cool part of our heritage to be able to show kids that would never in their life get a chance to do that. It’s an honor to be able to do that for people.” **A**



Southbound traffic between Park City and Heber City slows to a crawl as a new resort is erected at the base of the Mayflower ski lift. Photo by Levi Sim.

Trouble in Paradise?

Tackling the Challenges of Living in Utah's Outdoor Recreation Communities · By Elizabeth Sodja & Lael Gilbert

What happens in Vegas may, perhaps, stay in Vegas — but for families trying to live in Utah's popular recreation communities like Springdale, Moab, and Park City, trouble has a way of following them home.

Gateway communities — the towns that act as the front porch to major national parks, public lands, and recreation

areas — face a host of challenges that tend to be invisible to shorter-term visitors. These include the skyrocketing cost of local housing, the proliferation of short-term rental properties, a tricky balance between economic development and conservation, an increasing risk of natural disasters, finding space for community expansion, fighting crowds

for access to beloved resources, and managing relationships between public land management and the community — just to name a few.

The people that choose to make their permanent homes in these spectacular areas often face complex dynamics to make life work ... and sometimes it still doesn't. In August 2021, Roslynn McCann, a USU

Extension professor based in Moab, was surprised to find herself living in a 17-foot trailer on top of Lizard Head Pass outside of Telluride, Colorado. She wasn't there for the stunning vistas or mountain biking, she was there for the daycare. Colorado was the third state where she, her husband, her two young sons, and her dogs had lived in the past year, and

she was exhausted. The family had returned home to Moab from Bozeman, Montana, where they'd lived for the summer months after almost every one of the already scarce daycare facilities in Moab had unexpectedly shut down during the COVID-19 pandemic. They were grateful to finally be back in Moab and hoped to find more options for childcare. However, at the end of the first day of reopening, the school's director came down with COVID and it immediately shut down again. McCann and her family were once again left to scramble with no other local childcare options available.

"Looking back, I'm honestly not sure how we did it," she says. "At one point, all the desperate parents — teachers, doctors, nurses, business owners — even started a parent rotation schedule until what few daycares there were would open back up."

If you didn't happen to notice the dearth of daycare facilities during your last slickrock visit, you certainly aren't alone. Availability of things like childcare and affordable housing can be taken for granted in bigger communities but are especially hard to come by in Utah's smaller recreation-adjacent towns. Despite high demand, it's difficult to get new providers to open their doors, locals say. Worker shortages, a cost-of-housing crisis, and the aftershocks of the pandemic make establishing these services tough. Childcare workers are notoriously underpaid and are hard to recruit, especially when they could choose to wait tables for hundreds of dollars a night.

A team of experts is working to **KEEP POPULAR RECREATION DESTINATIONS SPECIAL** by supporting local communities and the families who live in the places they love.

So when a preschool in Telluride had an unexpected opening, the McCann family hit the road again and wound up living on the top of Lizard Head Pass in a trailer.

For the past few years, an initiative based out of the Quinney College of Natural Resources has been working to address the unique challenges that gateway communities face.

"We started The Gateway and Natural Amenity Region Initiative because we saw a huge need," says Jordan Smith, director of USU's Institute of Outdoor Recreation and Tourism. "For a small town to operate with an ongoing flow of thousands or millions of visitors each year, you need to have careful planning, or things can get funky really quick."

But in some of these communities, leadership positions are often staffed not by full-time experts but by volunteers. Given the complexity of land

use regulations, it's not realistic to expect a part-time mayor in a community of 300 year-round residents — someone who also might run a restaurant or own a ranch — to suddenly be the expert in transportation planning or short-term rental ordinances.

There are plenty who would offer advice, but outside investors and their motives are unpredictable. The stakes are high and bad decisions can have consequences for generations, not just on the town, but also the local public lands that so often define them.

"Leaders in gateway communities need access to information specific to gateway communities to address their unique and emerging problems — and they want to see success stories, as well as lessons learned the hard way, from other places too," Smith says.

The mission of the GNAR (Gateway and Natural Amenity

Region) Initiative is to help Western gateway communities and the public lands around them thrive, and to preserve the things that make them special.

"The only reason I'm here is because of my dad. I couldn't afford to live here. My kids are only here because of me, they couldn't afford the houses here either," says Stan Smith, owner of one of the few remaining independent hotels in Zion National Park's gateway community, Springdale. "I've always tried to stand up for the mom-and-pop shops, but they're going away because they can't afford to be mom-and-pop shops. I hope in the future [the Bumbleberry] is thriving, and my grandkids and great-grandkids are enjoying it, because it really is a wonderful place to live."

Strong long-term communities are what the GNAR Initiative hopes to build. It is

an inter-university partnership between USU and the Wallace Stegner Center's Environmental Dispute Resolution Program at the University of Utah.

"These are small towns with big-city problems," says Danya Rumore, director of the Environmental Dispute Resolution Program and co-director of the GNAR Initiative. "Most towns don't have a population of 300 people with two million or more cars on the road every year. But places like Springdale do see that kind of traffic. In one way, these are unique places who need unique tools ... but in other ways, they're facing similar challenges to other communities across the West."

The initiative tackles its goals through a variety of strategies, and one particular effort has proven especially valuable to community lead-

ers. Rather than compiling reams of planning and strategic information for local leaders to wade through on their own, the team found that the best way for towns and cities to find solutions was by communicating directly with each other.

"We get asked a lot which community has figured it all out, and our answer is none of them, completely. But a lot of people are trying," says Jake Powell, co-director of the initiative from USU's Department of Landscape Architecture. "Creating an easily accessible space for this kind of peer-to-peer learning is one way the GNAR Initiative helps increase the capacity of gateway communities across Utah and the West to respond to emerging challenges."

The initiative hosts online learning series and webinars. It also maintains a growing online toolkit with model ordinances,

case studies and resources, and conducts research on topics including how housing, transportation, and land uses are interconnected; and how the increase of pressure on one community can trigger challenges in others.

This fall, the GNAR Initiative is increasing its offerings through the launch of the GNAR Academy. The program will share information, lessons learned, and best practices in a structured way for busy local leaders. It will allow anyone to log on, get the information they need, earn a certificate, and then get back out to work, Smith says.

While this alone may not be enough to solve the many challenges facing gateway communities, the GNAR Initiative will continue working to keep these communities places where people can live balanced and comfortable lives.

In the meantime, parents like McCann are trying to make things work, with their cities and counties doing what they can to help. Last year, Grand County Commissioners approved a \$100,000 request to bolster existing childcare programs and incentivize new ones. But for this summer? With her now 4-year-old in daycare, McCann has pieced together a series of weeklong summer camps for her 6-year-old.

"I feel lucky that it seems to be working out. Within a day of registration opening, they were totally full — it was crazy. I didn't get into each week so we are still sometimes juggling our kids being home full time with our work schedules. I'm hopeful this issue will get the attention it deserves." **A**



2023 FOOTBALL SCHEDULE

 SEP. 2 at IOWA	 SEP. 9 vs IDAHO STATE	 SEP. 15 at AIR FORCE	 SEP. 23 vs JAMES MADISON	
 SEP. 30 at UCONN	 OCT. 7 vs COLORADO STATE	 OCT. 13 vs FRESNO STATE	 OCT. 21 at SAN JOSE STATE	 NOV. 4 at SAN DIEGO STATE
 NOV. 11 vs NEVADA	 NOV. 18 vs BOISE STATE	 NOV. 24 at NEW MEXICO	 DEC. 2 MOUNTAIN WEST CHAMPIONSHIP	

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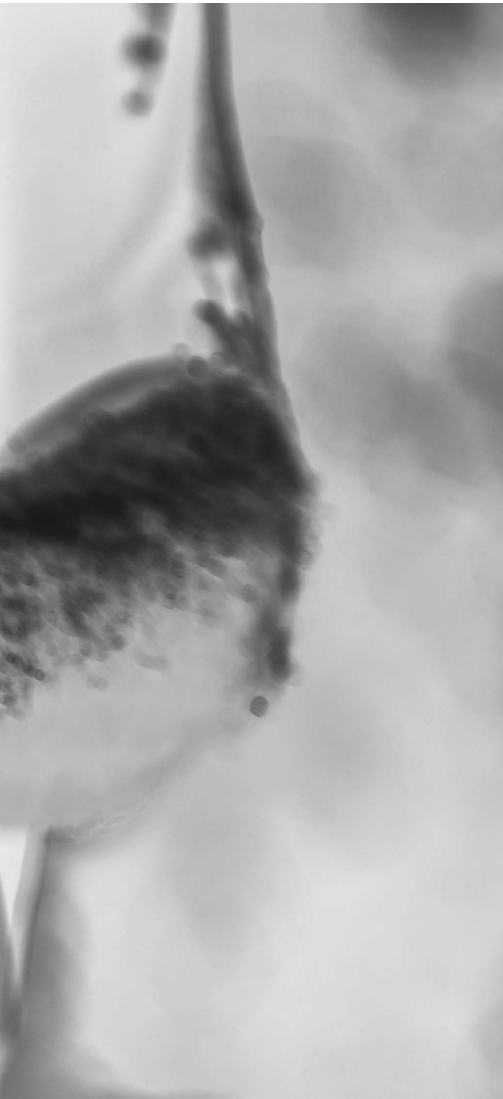
Eric Newell holds a photograph of his mother, Linda King Newell. Eric remembers his mother, an influential author and historian, spending many hours pounding out pages on her typewriter. Photo by Levi Sim.



LIVING THE IMPOSSIBLE DREAM:

LINDA KING NEWELL'S
LIFE WAS ANYTHING
BUT ORDINARY

By Timothy R. Olsen '09, '18 M.B.A.



Linda King Newell, an influential historian, author, and advocate — arguably best known for co-authoring the groundbreaking book *Mormon Enigma: Emma Hale Smith* — left an indelible mark on the world. Her dedication to historical research, passion for the arts, and desire for knowledge profoundly impacted all those who crossed her path.

“Her life was the impossible dream,” says Chris (Christine) Newell, the oldest of Newell’s four children. “Growing up as

this poor kid in rural Utah whose parents both really struggled with alcohol dependency and finding her way out of that to this beautiful life and a really significant career and contribution to the world, it was the impossible dream.”

A 1963 Utah State University graduate, she died in February at the age of 82, leaving a lasting impact and legacy throughout the world, state of Utah, and USU.

Along with the publication of her book in 1984 (which she co-authored with Valeen Tippetts Avery), Newell’s “impossible dream” included multiple awards and honors, various other published works, and a passion for the arts that led to the creation of the Zion Canyon Mesa retreat — an “arts and humanities center where writers, scholars, and visual artists can work on designated projects.”

A few of the numerous accolades Newell received include the Mormon History Association’s Best Book Award and interpretive history prize. Her desire for knowledge and dedication to research and to her craft are reflected in awards as well as the memories and attitudes of her children.

THE IMPORTANCE OF EXPERIENTIAL LEARNING – AN AGGIE FAMILY

When it came to the pursuit of higher education in the Newell household, Chris, Jennifer, Eric, and Heather Newell all said it was never a question of “if” they would go to college. Rather, it was simply understood that they would. And, despite navigating drastically different paths, all four followed in Linda’s footsteps by graduating from Utah State University.

“They certainly were predisposed by Linda’s very positive experience as a student at USU. And her sense of

loyalty to the place,” says her husband of 59 years, L. Jackson (Jack) Newell, about his children becoming Aggies. “(Linda) was a first-generation college graduate. And so I think an institution earns a special loyalty from people who are doing it for the first time.”

Similar to Linda’s path, which started at the College of Southern Utah before finishing up at USU, her children’s paths were anything but linear. As the oldest, Chris (’88) was the first to attend USU, despite Jack serving as a dean at the University of Utah at the time.

Both Newell parents encouraged their children to “go away” for school and USU was the perfect fit being far enough away for independence, but close enough to travel home when needed.

Jennifer (’91) was the next to attend USU, and both she and Chris took advantage of the National Student Exchange program to spend a year learning at universities of Georgia (Chris) and Oregon (Jennifer). Jennifer also spent a quarter abroad, studying in Mexico.

Eric and Heather were the final two USU graduates, both earning their undergraduate degrees in 1998. Eric, who is the director of experiential learning and technology at the Edith Bowen Laboratory School on the USU campus, added a master’s in 2003 and a doctorate in 2018.

Meanwhile, Heather’s path to a Utah State degree was the most winding, as it included three months doing a “semester at sea,” and three semesters at universities in Maine through the National Student Exchange program. Like her older brother, she also now works for USU, having recently started a position in the School of Teacher Education and Leadership as a faculty member and program coordinator.

“(My mom) saw education as the pathway to achieving whatever it was in life that she knew she needed to do,” says Chris, who added a master’s degree from USU in 1991. “I believe that’s what the real impact of a good liberal



“WITH EVERY
STEP YOU
TAKE THAT
OPENS YOUR
WORLD UP,
THEN MORE
WORLDS
OPEN UP,
RIGHT?”

- JENNIFER NEWELL

education is — it opens you up to the possibility and opens you up to parts of yourself that you haven't known before. I think that was a real example for us.

"I have to say, as an adult, I have a much bigger appreciation for her. She's just such a badass, and I have a much greater appreciation for her professionalism. Once I became a professional woman, and really could understand the struggles and the challenge, and really what it took, I realized that she did all this and raised four kids. And she did have a real impact on the world."

A SMALL-TOWN GIRL, A GREAT BIG WORLD

A **direct descendent** of Mormon pioneers — all eight of her great-grandparents traveled across the plains — Linda Newell grew up in the small central Utah town of Fillmore as the second of five children. In spite — or maybe because — of her turbulent home life, she found a sense of community with her local congregation from The Church of Jesus Christ of Latter-day Saints.

"My mom didn't always talk that much about her childhood, because it was hard — she did grow up in really difficult circumstances," Jennifer remembers. "So, I think we clung to some of the things that she would say when she would talk about it. But I think definitely she had community mentors and people that just kind of looked out for her and guided her in different ways."

After graduating from Millard High School, some of that guidance led her to the College of Southern Utah (now Southern Utah University) for two years before transferring to Utah State to complete her bachelor's in art and education. During that time, she spent her summers working at Bryce Canyon National

Park and the North Rim of the Grand Canyon.

There she met people from all over the world. She also met Jack — at the time a graduate student at Duke University — whom she would marry in 1963. He was working as a firefighter at the North Rim that summer.

In 1961, Linda had the opportunity to visit the East Coast as part of a Drama Club trip. The club traveled across the country by bus to New York City, where they saw five Broadway shows and an opera before visiting Washington D.C. and the White House. During a tour arranged by Utah Senator Frank Moss, Linda met President John F. Kennedy and then-Vice President Lyndon B. Johnson.

According to her family, Linda said this trip had a significant impact on her and really opened her eyes to the endless possibilities that existed in the world.

"She recognized that this young woman from Fillmore, Utah, could go and have these broad experiences and be exposed to these huge and really important things," Jennifer says. "I think that also built her confidence. And that with every step you take that opens your world up, then more worlds open up, right? ... So, I think that those kinds of experiences were huge."

Several years ago, Chris remembers the Newell family embarked on what she called a "heritage tour," which included a visit to Linda's Fillmore home. While there, the matriarch recounted an experience to her family about walking home from high school one day. She stepped over an irrigation ditch just outside the home and thought to herself, "I have to get out of this place. There is something I have to do in this world. I had no idea what it was. All I knew was that there was something bigger for me, and I needed to get out."

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GET OUT.”

– CHRIS NEWELL,
PARAPHRASING HER
MOTHER LINDA
KING NEWELL

Opposite page: (Top) The Newell family on a trip to England in 1978. (Middle) Jack and Linda pose for a picture in Salt Lake City in 1975. (Bottom) The Newell family near the Devil's Backbone in Southern Utah, Oct. 2018. Photos courtesy of the family.

“BECAUSE OF THE CIRCUMSTANCES SHE GREW UP IN ... I DON'T THINK SHE EVER FELT LIKE SHE WAS ENOUGH. AND SO, I THINK THAT MADE HER EXTREMELY AMBITIOUS. I JUST LIKE TO TRY TO SEND MESSAGES TO HER, WHEREVER SHE IS, THAT IT'S OK. IT'S OK MOM, YOU DID ENOUGH.”

– HEATHER NEWELL

EMMA HALE SMITH AND THE BOOK THAT CHANGED EVERYTHING

IN 1974, Linda began working on a book detailing the life of Emma Hale Smith, the wife of Joseph Smith, the founder of the Church of Jesus Christ of Latter-day Saints. Up to that point, there was very little historical literature focusing on Emma Smith and her journey through the early days of the church. Newell and Valeen Avery set out to tell that story.

“That book was written on a typewriter. I can still hear the sound of that typewriter. She was always in her study, the keys pounding away,” her son Eric smiles as he reminisces while sitting in his office on the USU campus. “I don’t know how many hours of my life ended up at AlphaGraphics copying manuscripts that she could send down to Val Avery, her co-author, in Flagstaff (Arizona), but I remember passing a lot of time there at copy centers, before everything was electronic.”

After nearly a decade’s worth of work, the “Emma Book,” as it is fondly called by Linda’s family, was published in 1984. Initially, Jennifer remembers there being an excitement for the book by leaders and members from their local congregation, as well as other members of the faith. However, that excitement soon turned sour as Linda and Val found themselves squarely in the crosshairs of church leaders.

At the time of the book’s publication, the official stance of the church regarding Joseph Smith and his involvement in the faith’s practice of polygamy differed from the research on Emma Smith uncovered by Newell and Avery. At one point, they were supposed to speak at an anniversary event in Idaho commemorating the Relief Society, a Latter-day Saint church group founded by and consisting of women, but their invitation to speak was rescinded.

“I feel like when my mom and Val Avery set out to write that book, it was empowering to say, ‘We can write a book, or write and tell the story of somebody that has never been told before,’” Jennifer says. “But it never was with like, ‘Oh, we’re going to expose ...’ you know what I mean? So, I think the whole time, they just really felt empowered to write and tell the story of someone that was misunderstood in the LDS church and someone whose story hadn’t been told.”

BEYOND WRITING, A PASSION FOR THE ARTS

Shortly after completion of *Mormon Enigma*, Linda received a scholarship to attend the Hedgebrook writer’s retreat on Whidbey Island in Washington. Located right on the Puget Sound, the retreat is “a literary nonprofit (whose) mission is to support visionary women writers whose stories and ideas shape our culture now and for generations to come.”

“Linda went up there and spent three or four weeks ... and was able to write in peace and tranquility,” Jack remembers. “She was so inspired by that she began talking early on about how wonderful it would be to create something like that in Utah.”

Writing wasn’t her only passion, though. She also loved painting and could find beauty anywhere, her children say. Whether it was arranging flower bouquets on a table or beautifying the campus of Deep Springs College — located just on the California side of the Nevada-California border, just outside Death Valley National Park — where Jack served as president from 1995–2004. Linda also painted each of her children portraits and then moved on to the grandchildren after that.

Through it all, she worked tirelessly through the decades to establish the Zion Canyon Mesa retreat in Springdale. Located just outside Zion National Park,



Linda King Newell, along with co-author Valeen Tippetts Avery, published the first in-depth look into the life of Emma Hale Smith in her groundbreaking 1984 book, *Mormon Enigma: Emma Hale Smith*. Photo courtesy of the family.

the retreat — which is now near completion — is the realization of Newell’s dream and a lifetime of overcoming obstacles. One of the residency cabins is even named the “Linda King Newell House of Grand Dreams” in her honor.

“It almost fell apart, I’m serious, like 50 to 100 times ... and she just kept at it. She never gave up on that,” says Heather, the youngest of Linda and Jack’s children.

“She had no business doing all this stuff, but she just did it because she’s so passionate about it. I don’t know if it was just ignorant bliss or sheer determination, but it was amazing that she never gave up on that place because most people would 100 different times — and she just kept going. She was so passionate about it and really wanted to see it through. I think it

was kind of a culmination of all these elements of her life.

“Because of the circumstances she grew up in ... I don’t think she ever felt like she was enough. And so, I think that made her extremely ambitious. I just like to try to send messages to her, wherever she is, that it’s OK. It’s OK, Mom, you did enough.” **A**



FUTURE FOCUSED

ELIZABETH
CANTWELL,
USU'S 17TH
PRESIDENT,
IS EXCITED TO
TACKLE THE
CHALLENGES
AND OPPOR-
TUNITIES OF
THE 21ST
CENTURY

By Jeff Hunter '96

Cantwell has worked in higher education for less than a decade, but has a vision to deliver on USU's land-grant mission and set the university up for success far into the future. Photo by Levi Sim.

Elizabeth Cantwell has a passion for higher education that dates back to her childhood.

The daughter of a geophysics professor at the Massachusetts Institute of Technology, Cantwell was attending a college prep high school in New York City when, at the tender age of 16, she elected to forgo her senior year so she could accelerate her academic career at the collegiate level. Due to her strong academic performance at Stuyvesant High School in Manhattan, Cantwell was accepted into the early entrance program at the University of Chicago. And, a mere two weeks after turning 17, she stepped into her first college class in the Windy City.

"I applied to four universities, was accepted by two, and one of them was the University of Chicago," says Cantwell, who would go on to complete a bachelor's degree in human behavior in 1976. "So I don't have a formal high school diploma."

"It was a little risky," she admits, "but I knew I would get that college diploma."

That one and a few more.

After making a decisive pivot away from psychology toward engineering, Cantwell ended up securing a bachelor's

in mechanical engineering at Stony Brook University in 1982, followed by a doctorate in mechanical engineering from the University of California, Berkeley in 1992. The woman known by friends and family as "Betsy" later added a master's in finance and entrepreneurship from the Wharton School of the University of Pennsylvania.

Those extensive academic experiences, coupled with a long career leading several governmental labs and eight years of working in higher education, eventually led Cantwell to Logan, where she was sworn in as the new president of Utah State University on Aug. 1 during a short ceremony in Old Main.

"I am beyond excited to start my tenure as Utah State University's 17th president, and I am honored to work with so many talented individuals," Cantwell declared in an email sent to USU faculty and staff on that day. "I look forward to meeting you over the next year and hearing your thoughts about how USU can even more successfully meet its land-grant mission of accessibility, student success, academic excellence, advancing research, and serving communities across the state of Utah."

A NON-TRADITIONAL ROUTE

Moving to Utah is definitely a dream come true for someone in Cantwell's household.

"I always wanted to move to Utah, but I never thought I could get my wife to agree," proclaims Cantwell's husband, David Hallikainen. "So I am thrilled for Betsy and for USU, but I am especially thrilled for our family being able to live in Utah."

Hallikainen explains that he was "informally adopted" by a friend's extended family in Vernal when he was young, and he has been coming back to the Beehive State to hunt in the Book Cliffs area for decades.

"I have incredible respect for Utah values and inspirational history, and the unbelievable beauty of the landscapes amazes me," adds Hallikainen, who has

had to scale back some of his outdoor adventures in recent years after being diagnosed more than two decades ago with a rare neurological disorder with symptoms similar to Parkinson's disease.

Hallikainen and Cantwell, who are the parents of five adult children, have been living in Arizona for the past eight years while she was employed in leadership positions at Arizona State University and then the University of Arizona. Cantwell says that while heading north to Utah wasn't necessarily the goal, staying on this side of the country was. When she started looking into potential presidential positions, she decided to only seek out opportunities at land-grant universities west of the Mississippi River.

"I lived in the East. I grew up in Boston and New York City. I know that whole environment, and I'm not interested in that milieu because I don't think the future of the United States is really going to come from there," Cantwell explains.

"Those places have done what they're going to do, and now they're living it out.

"We are still norming, forming, and storming in the West. Look at Utah and Arizona. They're great examples of states that are still growing and aren't predicted to drop in population for at least a decade, if not more. So that landscape is really exciting for the land grant, if you take this kind of service opportunity, as an educational institution, seriously."

Perhaps Cantwell feels that way because she came out West to forge her own career path.

Following graduation from University of Chicago, she stayed in the area working at an adoption agency for a year before being accepted into Stanford University's social work program. Cantwell's mother, Jan, graduated from Radcliffe College in her youth but stayed at home to raise her three children until she and Cantwell's father, Tom, divorced when Cantwell was a teenager. Jan then embarked on a career as a social worker, something she did well into her 70s.

Cantwell was poised to follow a similar path until doubts formed as she neared the beginning of her graduate program in California.

"I knew that I really wanted to do something different," recalls Cantwell, who nonetheless relocated to the Bay Area. "And I just never started the program. I thought, 'If I don't leave now, it's going to cost a lot of money to get this degree, and I'm never going to do anything different.'"

Cantwell ended up taking a job answering phones at a marketing company, instead, and credits that break from school, along with her father, for



Cantwell, top middle, spent time on the "Vomit Comet" during her tenure with NASA. Photo courtesy of Elizabeth Cantwell.

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helping her decide what to do next. Tom Cantwell had also made a bold decision, himself, to leave academia and use his skills to become, first, a pioneer in using computer-enhanced geophysical data to aid in petroleum exploration, and then turning his unique skills toward the entertainment industry and helping to develop computerized animation.

Likewise, Cantwell abruptly altered her life’s plan. She had done extremely well at Stuyvesant, a renowned STEM school, and decided she wanted to pursue a career in engineering. Taking advantage of living in California, where community college courses were being offered for free at the time, she signed up for classes and completed the prerequisites in math, physics, and chemistry.

“And I just kept going,” she says.

First, it was back to New York, where she completed an engineering degree at Stony Brook, then a return to the Bay Area to serve as a research engineer at the NASA Ames Research Center and secure a doctorate in fluid mechanics and combustion from UC Berkeley. Cantwell went on to work at NASA Headquarters and spent time at the Livermore, Los Alamos, and Oak Ridge national laboratories.

She was serving as the director of the Livermore National Laboratory in California when she met Michael Crow, the president of Arizona State University.

“That’s when I said, ‘OK, I’m going to jump into higher ed,’” Cantwell says, explaining that she felt a “transformation” was taking place at that time in higher education.

“Honestly, we’re really only at the beginning of that transformation,” she explains. “We’re starting to see a drop in populations of young students, but also an enhancement of our mission of lifelong learning. People are going to be changing jobs now far more frequently than they did even a decade ago.”

Cantwell accepted a position as a professor in the College of Engineering at ASU in 2015, and she left in 2019 as the vice president of research development in

Tempe. She then moved south to Tucson, serving as an aerospace engineering professor and the senior vice president of research and innovation at the University of Arizona. Her role as a senior VP came with the responsibility of overseeing an \$825 million annual research portfolio and the UA Tech Park, which employs more than 6,000 people and houses over 100 companies and organizations within its 1,267 acres.

But when Noelle E. Cockett announced that she was stepping down as president last fall, creating a future opportunity at USU, Cantwell couldn't resist the chance to continue the land-grant mission she had been so heavily involved

in at the University of Arizona in another Western state.

When applying for the position of USU president, she wrote in her cover letter: "My entry into academic leadership has been 'non-traditional,' but I have learned from the best, and have become completely committed to the public university land-grant mission. My background in regional economic development anchored by a large research institution led me to a strong conviction that for a significant public university, today's biggest societal challenges are best viewed through the lens of partnership with our regional communities, both because these are

the public whom we serve and because the details of any of the grandest global challenges absolutely matter at the local level."

TRUE TO THE MISSION

Betsy Cantwell and David Hallikainen met at a café in Berkeley, California. He was finishing up law school while living on a boat in the San Francisco Bay.

"He was studying at the café, and we were there at the same time," Cantwell recalls. "Over a period of a couple of months, we eventually began talking and that was sort of all she wrote."

The son of a Finnish father and New Zealand mother who met during World War II, Hallikainen spent much of his childhood living on a boat and has sailed solo from California to Hawaii. He and Cantwell also lived on a boat together near Richmond, California, before the couple had children. The couple adopted their three oldest children after being told they wouldn't be able to have children of their own.

"Then I got pregnant, and my doctor said it was a 'medical miracle,'" Cantwell says with a smile, noting there's a 10-year age gap between her third- and fourth-oldest children. "Then when I had the second one, he said, 'Wow!' and I got some real incredible feedback about what a miracle that was."

While Cantwell and Hallikainen's three older children attended school in California, the two younger ones went to colleges in Arizona. Cantwell's youngest daughter, Hannah, thinks her mother will thrive in her new role at USU. And she's also looking at it from the perspective of a current college student herself.

"She's the type of person that cares a lot about when people around her are having problems and really tries her best to sort things out and brainstorm ways to fix things," says Hannah, who's currently pursuing a doctorate in chemical engineering at Washington State University. "She's

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Cantwell and husband David share a passion for travel and adventure, such as this trip to Joshua Tree last year. Photo courtesy of Elizabeth Cantwell.

very focused on ‘What are the practical steps that can be taken for any particular problem? How do you fix this? What’s the problem? And how do you get around it?’

“I’ve been told by friends of mine in my age group that when they meet my mom, she can be a little bit intimidating at first. But that she really does care about what’s going on. And she likes to listen to

people who are struggling.”

Hannah adds that student mental health and well-being is very important to her mother — something Cantwell touched on in her cover letter when applying to USU.

She wrote: “We are in a fraught time such that the balance of our cultural attributes has tipped in favor of things

where genuine anxiety is warranted. Every one of us in institutions of higher education is deeply concerned and struggling to find the right ways to meet this moment on behalf of our students. As a mother of five, I am keenly aware that I cannot give to my children a world that is peaceful, or even frankly majority kind. But I am committed for them and for the communities I serve to using everything at my command as an educator, as a researcher, as a successful thinking, learning, questioning, driven leader to empower our newest generation of college learners to be resilient humans who own their own destiny and find happiness and health getting to that destiny. I expect to be as committed to the students at Utah State University as I am to my own children.”

And as she steps into her new role of president of Utah State University, Cantwell is also looking far into the future, well beyond the current student body and her own children. While noting that higher education is “complex and changing,” she says that the real challenge is “How do we stay true to the mission?”

“We must exist in 100 years. We don’t have an option, in my opinion,” she says. “We know that we will look different, but we must still be here serving the public in 100 years. ... To me, part of the job is putting the adaptive capabilities in place that allow the institution to be what it needs to be as we move forward. How do we set it up so the institution is able to provide what we provide today as we move into the future?” **A**

Calling it “love at first sight” might be a little strong, but Charlie Crisafulli’s inaugural view of Mount St. Helens was certainly one of strong attraction.

It was the summer of 1978. And Crisafulli, a native of New York state, and a couple of friends had converted a Ford Econoline van into a camper and drove north into Quebec. The trio then fished, hiked, and camped their way west, venturing into as many Canadian provinces as they could before reaching British Columbia. The young men then headed south into Washington where they encountered the mighty mountains of the Cascade Range on their way to Oregon.

“I remember seeing Mount St. Helens off in the distance as we drove; I didn’t even step foot on it,” Crisafulli recalls of the massive stratovolcano that would end up dominating the next four decades of his life the way it dominates the landscape of southwestern Washington.

“There’s a number of places along I-5 where you get great views, and I can remember looking over to the east and she popped up above everything else in all her glory. It was a really beautiful, warm day, and the mountain was snow clad and perfectly symmetrical.”



THE MOUNTAIN MAN:

Charlie Crisafulli Made a Career
and a Life at Mount St. Helens

By Jeff Hunter '96



By his own estimation, Crisafulli has spent more than 3,000 days or nights in the field on Mount St. Helens during his 32 years as a research ecologist for the U.S. Forest Service. Photo by Levi Sim.

Lessons from Nature

It's one of those moments that always shows in a montage presenting the biggest news stories of the '80s. Along with major moments like the attempted assassination of Ronald Reagan, the Space Shuttle Challenger disaster and the fall of the Berlin Wall can be found the eruption of Mount St. Helens. And since it took place on May 18, 1980, it's arguably the first noteworthy event of the decade, one that means many people of a certain age still vividly remember where they were or what they were doing when the mountain blew its top.

But, ironically enough, Charlie Crisafulli isn't one of them.

"I definitely have run into a lot of people who have commented on where they were that day, whether they witnessed the eruption on television or had an actual view of it," says Crisafulli, who retired in 2021 after being employed by the U.S. Forest Service as a research ecologist for 32 years. "But I wasn't there at that particular time. I think I was in Wyoming — but it was a Sunday, so we could have been back in Logan — but we were working on a big project near Kemmerer that summer."

Crisafulli's involvement in that project, a mine reclamation study located about 50 miles outside of Kemmerer, Wyoming, came about due to an emerging relationship with James MacMahon, the longtime professor and College of Science dean who retired from Utah State in 2014. One of the first classes Crisafulli took at USU was a herpetology course from the man he refers to as his "No. 1 mentor," and that led to an ecology class with MacMahon and many other opportunities, including a job at USU's Ecology Center.

Crisafulli adds: "When I got back home that fall, I said to my parents, 'You know, I really need to go out West.'"

Much like Theodore Roosevelt, who also grew up with a deep appreciation for the flora and fauna of his native New York while later developing a passion for the landscapes and wildlife of the American West, Crisafulli soon did just that. After successfully applying to Utah State University as a transfer student from a college in New York, Crisafulli headed west again to continue his education.

At the time, he knew very little about

Utah and wasn't even entirely sure exactly what his field of study was going to be.

And what Crisafulli certainly didn't know when he arrived in Cache Valley is that due to his enrollment at Utah State and his subsequent association with a USU professor, he would be returning to Mount St. Helens less than two years after his first glimpse of the 9,677-foot mountain.

Only this time, it was more than 1,300 feet shorter and no longer "perfectly symmetrical."

On May 18, 1980, at 8:32 a.m., the north flank of Mount St. Helens slid away in the largest landslide in recorded history. Seconds later, the uncorked volcano exploded, destroying everything in its path within minutes. Photo courtesy of the U.S. Geological Survey.

“We were enormously close,” Crisafulli says of MacMahon. “There’s no figure in my professional life who stands out as such a pillar as Jim MacMahon. He was instrumental and, in some ways, I feel largely responsible for my career and my whole experience because of the nurturing and mentorship that he provided.”

That relationship resulted in Crisafulli being invited along when MacMahon took a group from Utah State to begin conducting research at Mount St. Helens in September 1980. Just 22 years old at the time, Crisafulli’s first-ever helicopter trip was above the incredible devastation wrought by the eruption, which killed 57 people, blew over or killed nearly 150 square miles of forest, led to massive debris avalanches and devastating floods, and buried the once green landscape with a heavy coating of gray ash.

Seeing the lush forests of the Pacific Northwest abruptly give way to dead, scorched trees and then the stark, barren topography of what became known as the Pumice Plain on the northern slopes of Mount St. Helens was an eye-opening experience for Crisafulli.

“I was like, ‘How could this be? How could this possibly have happened at this scale?’” Crisafulli recalls thinking. “It was so awe-inspiring and compelling. And I knew at that moment I was looking at something that was profound and moved me to my core. I was frightened by it, and I was inspired by it. There were a host of emotions running through me. And at that time, I was just a kid and had no idea those formative experiences would be foundational and end up being a lifelong career that I’m still involved with today.”

During that first fall after the eruption, the road system in the vicinity of the mountain had been all but obliterated, leaving helicopters as practically the only way to reach the area. Even then,



the pilots were instructed to keep their rotors spinning, leaving researchers like Crisafulli only about 10 minutes to collect samples and record their observations before taking off.

But Crisafulli embraced those early scientific opportunities with such enthusiasm that MacMahon ended up asking him to be the “Mount St. Helens

kid” and spend as much time as possible spearheading many of Utah State’s research efforts. He wholeheartedly accepted, annually spending at least five months a year in the Mount St. Helens area while finishing up his undergraduate degree and moving into a position at the Ecology Center in USU’s Department of Biology, where he was employed from 1983–89.

It was in the spring of 1989 when the perfect job opportunity for Crisafulli emerged: a full-time position with the U.S. Forest Service's Pacific Northwest Research Station as an ecologist at Mount St. Helens. He said leaving Logan, Utah State, and influential friends like MacMahon led to "a lot of tears," but once the job was offered, Crisafulli and his family soon relocated to southwestern Washington, eventually settling in the small town of Yacolt about 35 miles northwest of Portland.

By the time he retired from the USFS in 2021, Crisafulli estimated he had spent more than 3,000 days and/or nights out in the field at Mount St. Helens, the majority of them at large camps he would supervise, often involving more than a 100 scientists and students from various agencies and colleges, including Utah State University.

In an essay published in 2008 entitled *Change, Survival, and Revival: Lesson from Mount St. Helens*, Crisafulli detailed how he spent his time on the mountain, "sampling biological populations throughout the volcanic landscapes, and hundreds of days more hiking, photographing, camp-

ing, skiing, and snowshoeing with family and friends."

"This work has been intellectually and physically exhilarating, while grounded in dust, grit, fatigue, and great camaraderie," Crisafulli continued. "In order to really learn what nature has to teach, we have to immerse ourselves in the natural world and see it from the perspective of individual plants and animals. We have to get to know the whole cast of characters, pay detailed attention to their activities, and unravel the tangle of factors that influence them. Through this practice, this immersion in field observation, we can begin to understand the relationships among living organisms and their environment. It's also a way to explore how we, as humans, fit into the natural world."

Life Goes On

Mount St. Helens is still the most active volcano in the Cascade Range. And while there's never been another eruption anywhere near the magnitude of the one in 1980, the mountain is still prone

to earthquake activity and eruptions on a smaller scale. However, those instances were much more common in the early '80s, which led Crisafulli to experience some of his most frightening moments at Mount St. Helens.

Once he was leading a Utah State crew in the northwest sector of the blast area, about nine miles away from the volcano's crater, when a helicopter suddenly showed up. The group had been out of radio contact, so the helicopter was sent to let them know that they needed to evacuate the area immediately due to increased seismic activity and gas emissions.

"Nine miles might sound far, but keep in mind that during the eruption, all life that wasn't beneath the soil surface perished within seconds at that location," Crisafulli notes. "We were directly in the line of fire."

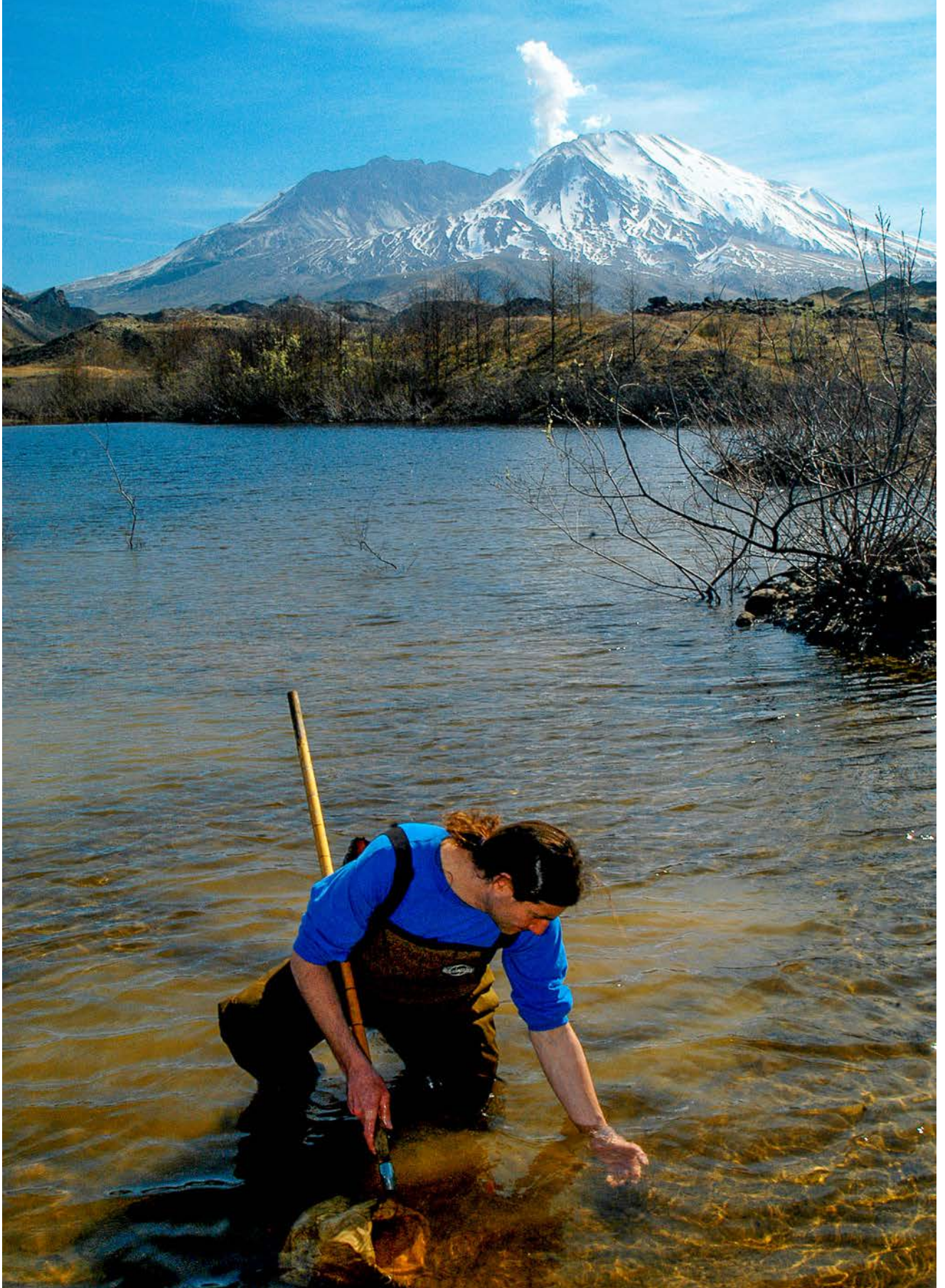
He was with another USU crew in 1983 when there no precursors of potential activity, but suddenly they heard thunderous rockfalls of the crater followed by "a big, dark, dark plume" of ash rising above the volcano.

"I can just remember us hightailing it as fast as we could, running a few miles out of there, across the Pumice Plain, to our vehicle," Crisafulli says. "I kept looking in the rearview mirror around every bend to see what that plume was doing. There ended up being nothing life-threatening about that event, but it certainly was a reminder that this volcano is not at rest, and we need to be on guard."

Needless to say, after spending four decades in the immediate vicinity of an active volcano, Crisafulli has learned a few things. And now that he's "retired," he's determined to share that knowledge with others while learning even more about what happens to the biological communities in the area following an eruption. He regularly travels to the sites of other volcanic eruptions in

Crisafulli in July 1981 live-trapping gophers in the flow from the eruption as part of Jim MacMahon's MSH Ecology Project. The vehicle in the background is USU owned. Photo courtesy of Charlie Crisafulli.





The eruption shot 3 cubic kilometers-worth of debris out the side of the mountain, which displaced the water in Spirit Lake and created numerous small ponds. Here, Crisafulli is sampling the deposits in one of the ponds looking for evidence of amphibians. Photo courtesy of Charlie Crisafulli.

remote locations like Alaska, Iceland, Chile, and Argentina to introduce studies and projects that he first set up in southwestern Washington.

“To what extent are the lessons gleaned from Mount St. Helens applicable or universal to other volcanic settings? There’s a lot that’s random or contingent upon other factors, but is there some level of predictability and universal application across settings?” Crisafulli queries. “The beautiful thing right now is that I’ve got to the point where I really need to know the answers to those questions. That is where I want to go with my career. The next step is to take the lessons from St. Helens and see how they hold up at other volcanic locations.”

Everyone encounters situations in their life that determine where they end up. There are forks in the road and “sliding door” moments that alter our paths through life, and for Crisafulli it was a unique and almost supernatural one. One that was also a catastrophe with a tragic outcome.

“It was a defining moment that ended up driving the direction of my life and probably my entire identity. I have to admit, I didn’t realize until I retired just how much of myself was tied up in that volcano,” Crisafulli notes. “But if Mount St. Helens hadn’t erupted, I would have looked for jobs but those are tough to come by in wildlife ecology, and I didn’t have a graduate degree. So, in the absence of the 1980 event, the very likely conclusion would have been I just ended up back in New York at the family business.

“I mean, I can’t even comprehend how different my life would have been, and it’s hard to envision a scenario in which I could have had such a fulfilling and enjoyable career. And so, out of this dramatic and tragic event where 57 people died came this great opportunity for me and others. But I’ve never lost sight that it was something that was very painful for many families and individuals.”

Crisafulli’s own family, raised in Utah and Washington, is now spread out. One daughter, Erica, resides in Montana with her husband and two sons (one of which is named Logan, after the place Erica

was born), while daughter Teal lives in Vermont. But the 65-year-old still plans to continue living in Yacolt on a six-acre plot of land adorned with a couple of greenhouses, a garden, some orchards, and raspberry and blueberry patches.

And, of course, what he refers to as “The Monument” — the stratovolcano was designated the Mount St. Helens National Volcanic Monument in 1982 — is only about 35 miles away, leaving him with plenty of opportunities to still check in on the “mammals, birds, amphibians, reptiles, fishes, insects and other invertebrates, fungi, plants of all sorts, and innumerable microbes” that he’s spent two-thirds of his life documenting.

“The volcano is so deeply intertwined in my life that it’s hard to distinguish my identity without including it,” Crisafulli declares. “It’s where we go hiking, fish for salmon and trout, go elk hunting and go cut a Christmas tree each year on Forest Service land.

“I can’t quite see the mountain from my house, but all I have to do is walk or drive 300 feet down the road and there’s St. Helens. It’s forever present.” **A**

Crisafulli has been continuously monitoring temperatures in Spirit Lake from the eruption right up to the time of printing. Here, he’s changing out a temperature sensor tethered to one of the floating trees in the lake. Photo courtesy of Charlie Crisafulli.



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— Charlie Crisafulli



USU Researchers Develop System to Convert Renewable Waste Byproducts Into Fuel

By Taylor Emerson '18



In the U.S., millions of people use airline travel on an average day, and annually billions of pounds of cargo are flown into and out of airports. According to the Environmental Protection Agency, the fuel consumption to meet this need was nearly 15 billion gallons of jet fuel and aviation gasoline in 2021.

Despite ongoing electrification efforts in this sector, there's clearly a need for aviation fuels in our society. However, beginning in 2021, the Federal Aviation Administration outlined a desire to achieve net-zero greenhouse gas emissions by 2050.

To help in both regards, Utah State University biological engineering endowed professor Foster Agblevor has researched a system to have a source of aviation fuels in a sustainable way.

Agblevor and his students have engineered a process to convert biomasses like wood and grasses

into biojet and sustainable aviation fuels. The system they've developed currently is designed to take in renewable waste by-products and residues from the forestry and agricultural industries — which can also help keep costs of the fuel production down.

Agblevor says the fuels produced through his system are fundamentally no different than typical petroleum-based products. By scaling this process up, the production of these fuels could ultimately aid in decarbonizing the aviation industry.

According to the FAA, sustainable aviation fuels “will be critical to the aviation industry’s ability to meet the net-zero emissions goal and they have the potential to slash emissions by up to 100%.” **A**



Learn more about how USU researchers are converting renewable waste byproducts into fuel.

Utah State University Biological Engineering Endowed Professor Foster Agblevor, top photo, left, and his students shown here working through, and talking about, the various stages of the biofuel production process. Photos by Taylor Emerson '18.

Native Americans and the Smallpox Vaccine:

History Professor Authors Piece for Medical Journal • By Jeff Hunter '96



Associate professor Seth Archer specializes in Indigenous history and the history of health, disease, and medicine in North America. Photo by Levi Sim.

Utah State history professor Seth Archer had scarcely arrived at the Logan campus in the fall of 2018 when he began contemplating writing an in-depth article about the removal of Indigenous people from their native lands in the United States in the early 1800s. But having previously written about health issues involving Native Americans, Archer sought a specific focus, and his “stepping off point” ended up being the Indian Vaccination Act of 1832.

That legislation, which appropriated \$12,000 to fund the smallpox vaccination of Native Americans, had passed just two years after President Andrew Jackson had signed the Indian Removal Act, and Archer found that timing perplexing.

“I thought that was really weird,” Archer notes. “Why in the world would Congress — which was a split Congress, as is often the case in American history — vote to vaccinate Native Americans to protect them against smallpox right after they voted to remove them from the nation? That just didn’t make sense to me.”

Archer certainly wasn’t the first historian to ask that question. But after reading numerous articles published by other scholars, he wasn’t completely convinced that previously made arguments were accurate.

“So, I just kind of started digging from there, and that’s what started this whole project,” Archer explains.

“The whole process took forever. By the end of it, I did wonder, should I have just written a book? Because this took years; a long time for one article,” he adds, acknowledging that, rather ironically, the beginning and end of the article bookended a worldwide pandemic and subsequent creation and implementation of a vaccine.

Archer ended up authoring an article entitled *Vaccination, Dispossession, and the Indigenous Interior*, which is slated to be published this fall in the *Bulletin of the History of Medicine*, the official journal of the American Association for the History of Medicine and the Johns Hopkins Institute of the History of Medicine.

Archer’s piece points out that despite an understandable lack of trust in the U.S. government, many Indian tribes still sought out and even requested the smallpox vaccine. He estimates that between 1832 and 1841, as many as 50,000 Native Americans were

Right: A drawing from the winter count kept by Set'tan (Little Bear), a Kiowa man, of a Kiowa suffering under a smallpox epidemic during the winter of 1839–1840. Image from Wikimedia Commons.

vaccinated thanks to the use of federal funds. Hired by the government, civilian surgeons traveled around the country with the expectation that they would administer the first vaccine in history to a hundred Native Americans a day via a method very similar to the one pioneered by English physician Edward Jenner in the late 1700s.

“Vaccine matter was obtained and prepared in various ways. In what was known as arm-to-arm or serial vaccination, fresh lymph (pus) was taken from a recently vaccinated person to infect another, eliciting the body’s immune response to the live virus,” Archer explains in his article. “Using a lancet, vaccinators made an incision on the arm and inserted the vaccine matter into the wound. Fresh vaccine was preserved on cotton threads, in ivory-tipped lancets, or between glass plates. Vaccinators also preserved vaccine matter in dried scabs kept in vials or small kits.”

Archer notes that more than 15,000 Native Americans living west of the Mississippi River were vaccinated in the 1830s, including members of the Shawnee, Omaha, and Osage tribes in parts of present-day Arkansas, Missouri, and Kansas. Many Indigenous people in the Upper Midwest were also vaccinated, which proved critical when the smallpox epidemic of 1837–38 killed tens of thousands of people across the Great Plains.

But while many members of the Dakota and Lakota tribes died during that outbreak, Archer points out that some of the nearby unvaccinated Indigenous groups like the Mandan (an estimated 90%) and Blackfeet (more than 60%) suffered far greater losses.

“Resistance to vaccination was not uncommon among Native people, yet many were open to the new form of preventive medicine, including some who sought it out and others who demanded it from the government,” the summary for *Vaccination, Dispossession, and the Indigenous Interior* states. “Departing from a scholarly consensus, the author argues, first, that the federal vaccination program should be viewed as a successful public health intervention in Indian Country and, second, that this

success owed to Indigenous nations’ desire for protection against a singularly destructive pathogen.”

Along with several paintings from the period by renowned artist Karl Bodmer, Archer’s article is illustrated by a couple of maps created by former USU graduate student Jonah Bibo. Now pursuing a Ph.D. at the University of Nevada, Archer enlisted Bibo’s skills to help show where and how many Native Americans were vaccinated in specific regions, while also helping to support his conclusion that the federal government was vaccinating Indigenous people already living outside of what was then the official border of the United States.

“For me, the really important takeaway from those maps is that these people were not in the United States; they were way out to the West,” Archer proclaims. “That suggests something different than what previous historians have said that this was all about making Indian removal easier.

“You see that’s not the case when you see where people are getting vaccinated, along the Missouri River and Platte River and the Southern Plains. Whatever else might be happening, the government was sending this campaign to people who lived way outside the bounds of the nation.” **A**

Editor’s note: While Archer’s article isn’t scheduled to be printed in the Bulletin of the History of Medicine until later this fall, a preprint version of Vaccination, Dispossession, and the Indigenous Interior is currently available.



View the preprint version of *Vaccination, Dispossession, and the Indigenous Interior*.



FIG. 80—Winter 1839–40—Smallpox.

Migrant Mothers

Transnational Women, Especially First-Time Mothers, Often Struggle With Differing Cultural Attitudes and Expectations

By Andrea DeHaan

Claudia Wright insists that qualitative research is good at making the evident more obvious.

“We have an awareness for the things we think we do,” she says, “but not necessarily for the things we actually do.”

A doctoral candidate in sociology, Wright has studied migrant motherhood for six years at Utah State University but continues to be impressed by how much her research interests parallel — and sometimes contrast with — her own experience.

In 2012, Wright moved to a small town in Indiana where her husband was in graduate school. It seemed like a good time to become parents, as good a time as any for the young couple who debated becoming parents at all. But living at the end of a winding road 40 miles outside of town and thousands of miles away from her family in Colombia, Wright felt totally alone.

“I did not experience the cozy warm feeling that motherhood is supposed to bring,” Wright remembers. “Instead, I felt the heavy expectations, people telling me what to do or what not to do, and telling me how to feel. I was expected to stop being me.”

As a new mother, Wright had the sense that she was constantly being monitored and judged — more harshly than her husband — by strangers and medical professionals, as well as their families from afar.

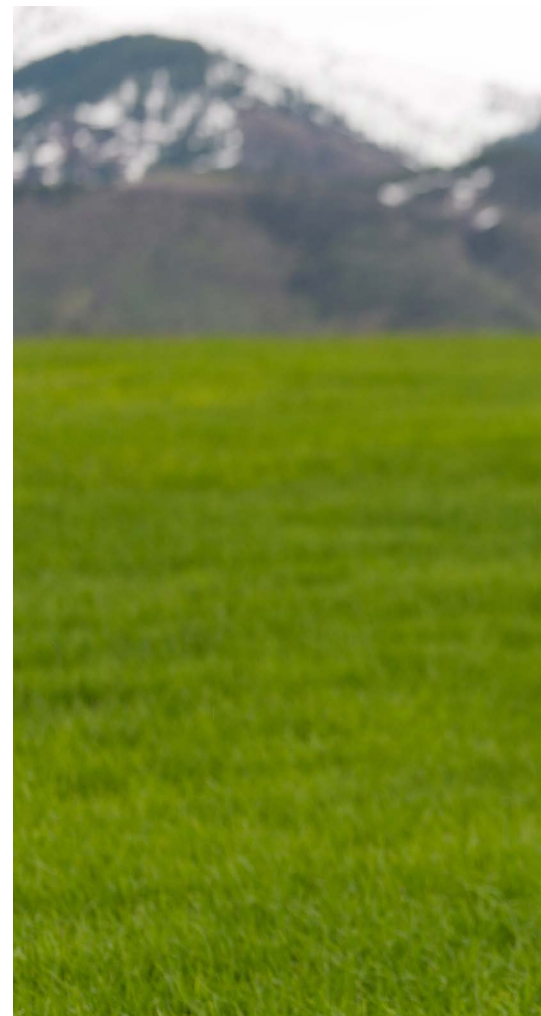
Thinking back on the experience now, she says they felt adrift as new parents.

Searching for answers, she sought solace from an unlikely source. Wright had studied the work of French philosopher Michel Foucault as an undergraduate, and she took inspiration from his idea of the panopticon — the way in which discipline and punishment work in modern society. Society’s expectations, from the multiple cultures in which she existed, were fertile fodder for the surveillance that she and others imposed on her actions and attitudes around the experience of motherhood.

“Maybe if I hadn’t studied anthropology, I would have seen motherhood from a more 1980s, Johnson & Johnson TV commercial perspective,” she jokes.

Whether it’s Dr. Spock’s “common sense” for the 20th century or today’s #momtok, the world is full of advice and opinions for current and expectant mothers, and Wright argues that migrant mothers face more scrutiny despite often being more isolated. Being transnational, or having ties to more than one country, further complicates the expectations placed upon them.

For her research, Wright interviewed transnational women living in the United States and, in many cases, their mothers still residing in Colombia. She narrowed the scope of her qualitative research to women with strong connections to their country of origin



to better explore how this dual identity impacts women looking to redefine themselves within different cultural and social identities.

“In-depth interviews allowed me to establish a semi-structured conversation to dissect mothers’ and grandmothers’ rationalization of their identities as mothers,” Wright explains. “This multi-generational and multi-sided perspective gave me holistic insight to understand transmigrant motherhood identities.”

Among her findings, Wright notes the older generation in her study tended to define motherhood by what they gave up

for the sake of others, while their migrant daughters saw parenting as a chance to empower future generations. Both groups put their children first, but the transnational population tended to see motherhood as more of an opportunity and less of a sacrifice.

“Migration plays a role in how transmigrant mothers experience the freedom and independence to be the mothers and the women they want to be,” Wright says. “But at the same time, women continue to abide by and struggle with the transnational and gendered expectations of class and motherhood.”

At its heart, Wright’s research explores how migration, class, and motherhood impact the way in which women define their experiences.

“My research is about empowerment, struggle, privilege, and resiliency,” she says. “It shows how all of these can produce very unique livelihoods.”

In reviewing the literature on the sociology of migration, Wright has also noticed a link between strong transnational connections and class. Colombia has some of the highest levels of cross-border engagement among Latin American countries, and Colombian culture places a high value on class identity.

Motherhood obviously transcends borders, but women emigrating to the Global North are often racialized upon arrival, meaning that they may occupy different social positions in their country of origin than in the U.S. When societal expectations for mothers are added to existing perceptions of class and gender, transmigrant mothers can become targets of additional bias and find it difficult to live up to competing model identities.

“Migration is both a source of conflict and an opportunity for more egalitarian gender practices in the home, as well as less authoritarian parenting styles,” Wright says. “Studying how transmigrant mothers configure their identities as mothers and the role that transnational ties and their intersectional identities play ... is a step toward exploring the ideologies, social constructions, and discourses that define how mothers think of themselves.” **A**

In her research, Wright, posing with her daughter, found that older generations tend to define motherhood by what they gave up for the sake of others, while their migrant daughters saw parenting as a chance to empower future generations. Photo by Levi Sim.





Utah State University Eastern offers an experience and product which is unrivaled in our region, and I believe that success stems from actively promoting opportunities to build a relationship with our campus environment where students thrive, faculty excel, and the community benefits ... My vision for this role encompasses a steadfast commitment to academic excellence, student success, and community engagement.

— **Douglas R. Miller**, new associate vice president & chief campus administrator of USU Eastern.



UNIVERSITY AFFAIRS

USU Eastern Names New Chief Campus Admin

Douglas R. Miller was named as the associate vice president & chief campus administrator of **Utah State University Eastern's** campus following an extensive nationwide search. He assumed the position on Aug. 14 and succeeds Greg Dart, who served as associate vice president from January 2019 until stepping down in June 2023.

Previously, Miller was a faculty member in the Jon M. Huntsman School of Business in the Center for Entrepreneurship & Marketing and Strategy departments. He holds a doctorate in strategic management and entrepreneurship from Washington State University, an MBA from the University of Montana and a bachelor's degree in English Literature from USU.

Below: Douglas R. Miller took over as the top administrator at USU Eastern's campus (above) in August after a national search.



Carmichael Tabbed as New Title IX Coordinator

USU recently welcomed a new Title IX coordinator to the Office of Equity staff as **Cody Carmichael** began working in this role during the final week of July.

Carmichael came to USU from the University of North Texas in Denton, where he had been the assistant director for equal opportunity and Title IX since August 2021. Previously, he was a litigation attorney for a Dallas law firm specializing in employment discrimination cases.

At North Texas, Carmichael conducted investigations related to discrimination, harassment, sexual misconduct, and retaliation to determine whether university policy was violated. He also served on the university's Clery Compliance Committee and a policy review committee.

As USU's Title IX coordinator, Carmichael will focus on compliance with federal Title IX regulations and university sexual misconduct policy. This includes ensuring the university's prompt response to incident reports of sexual misconduct, coordinating effective implementation of supportive measures, informing claimants of their option to file a formal complaint, and informing involved parties of their rights and obligations under the grievance process.

Life Sciences Building Named in Honor of Outgoing President

The newest academic building on Utah State University's Logan campus, the Life Sciences Building, has a new name in honor of former university president Noelle E. Cockett.

At a June 15 farewell reception, USU Foundation Board Chair Jeannine Bennett announced the naming of the **Noelle E. Cockett Life Sciences Building**, which opened for classes in January 2019.

Jixun Zhan Elevated to Biological Engineering Department Head

In July, the College of Engineering announced that Professor **Jixun Zhan** would be the new head of the Department of Biological Engineering.

Zhan joined the department in 2008, teaching metabolic engineering and other general biological engineering courses. He has served in many advisory committees and has published 118 research articles. Zhan had been serving as interim department head since March 2022.

He received a bachelor's in fermentation engineering at Nanchang University and a master's from the Tianjin University of

Science and Technology. He also attained a Ph.D. in biochemical engineering at East China University of Science and Technology. He has earned \$3.2 million in research expenditures for the university since his hiring.

Zhan is a member of the American Chemical Society, Institute of Biological Engineering, and many other organizations. Prior to joining Utah State, he was an assistant professor at the Icahn School of Medicine at Mount Sinai and a postdoctoral researcher at the University of California, Los Angeles.



Former USU president Noelle E. Cockett addresses the crowd at her farewell reception. Photo by Levi Sim.

"Noelle's tenure has elevated the prestige and recognition of USU as she has overseen the creation of innovative centers and state-of-the-art buildings that have energized our campuses and communities," Bennett said in a speech that highlighted many of Cockett's accomplishments during her six-year tenure as president and 33-year career at the university.

USU broke ground for the Life Sciences Building on April 25, 2017 — four months after Cockett became president. It was built to meet the growing



See highlights from the farewell reception and Life Sciences building naming ceremony.

demand at USU for foundational biology courses, which are required for more than 30 undergraduate majors ranging from life sciences and natural resources, to agricultural, nutrition and food sciences, and engineering.

The 103,000-square-foot building houses a lecture hall, teaching and research laboratories, student study spaces, an outdoor teaching garden and a café.

Hill Air Force Base and USU Sign Historic Agreement

A new agreement between Utah State University and **Hill Air Force Base** will create enhanced learning opportunities for students and spur innovative joint research efforts.

The Education Partnership Agreement was signed earlier this year by former USU president Noelle E.

Cockett and Wayne Ayer, a director of the Air Force Sustainment Center's Engineering and Technical Management Directorate in Ogden. The agreement creates a more direct partnership between USU and Hill Air Force Base, which allows both parties to more efficiently engage on future research.

Under the partnership — which is scheduled to last 60 months — USU faculty and students will have access to Air Force specialized equipment. Members of the Air Force will in turn be given the opportunity to earn certificates and degrees from USU.

ARTS

Morrison Appointed Dean of USU's Caine College of the Arts

On June 1, Nicholas Morrison was appointed dean of USU's Caine College of the Arts. He had served as interim dean since Aug. 1, 2022.

"We are happy that Dr. Morrison has been named as dean of the Caine College of the Arts," says USU Provost Laurens H. Smith. "He has been with the college since its inception and has served well as interim dean. With his passion about faculty development and student success, we are confident he is the leader that the Caine College needs as it moves forward."

In addition to his role as dean, Morrison is also professor of clarinet in the Department of Music and the music director for the USU Summer Alumni Concert Band. Morrison has been extremely involved in leadership positions at USU. He has served as the executive associate dean of the College of Arts from its founding until 2020; associate dean in the College of Humanities, Arts & Social Sciences; interim head of the Department of Music; interim director of the Interior Design Program; and as interim director of the University Honors Program.

Rendering of the new Wanlass Center for Art Education and Research.



Ground Broken On New Wanlass Center

In June, USU broke ground on another upcoming addition to the Logan Campus: the **Wanlass Center for Art Education and Research**.

The 9,450-square-foot center (pictured above) is designed by Sparano + Mooney Architects and will include, among other things: a multi-purpose studio classroom that will be used for both USU courses and community classes, a study center accompanied by an open classroom space, a research library, and visible collection storage that will allow for easy access to artworks for research and discussion.

"The 21st century museum should be a multi-faceted experience and we envision this new facility as a complementary space that takes learning about art and collections to new levels," says Katie Lee-Koven, executive director and chief curator of the Nora Eccles Harrison Museum of Art.

CAMPUS LIFE

Learn more about the purpose of the new Wanlass Center and what it will bring to USU.

USU Joins a National Alliance for Faculty Development

In a continuing effort to promote academic excellence and a sense of belonging among its scholars, USU has joined the 450-member-strong **National Center for Faculty Development and Diversity**.

The Detroit-based institute provides professional development, training and mentoring for faculty, postdoctoral fellows and graduate students with the goals of enhancing productivity and work-life balance through communities of support and accountability.

The Aspire Alliance, led by the Association of Public and Land-Grant Universities and also known as "Aspire: The National Alliance for Inclusive and Diverse STEM Faculty," seeks to develop inclusive faculty recruitment, hiring, and retention practices among its member institutions.

Vanderwall Named 2023 Veterinarian of the Year

Professor Dirk Vanderwall, interim dean of Utah State University's **College of Veterinary Medicine**, was recently named the Utah Veterinary Medical Association's 2023 Veterinarian of the Year.

Vanderwall was a vocal advocate for establishing the state's only independent four-year veterinary medical program at USU. The award ceremony was part of the Mountainlands Utah Veterinary Summit and was a surprise to Vanderwall, who attributes the achievement to the help and encouragement he's received in his career.

Collaboration has long been a hallmark of Vanderwall's career. In 2003, while working at the University of Idaho, Vanderwall teamed up with veterinary scientist Gordon Woods and Professor Ken White — now the dean of USU's College of Agriculture and Applied Sciences — to create the world's first equine clone, a mule named Idaho Gem. Vanderwall was recruited to Utah State in 2012 with the start of the Washington-Idaho-Montana-Utah (WIMU) Regional Program in Veterinary Medicine, a collaboration with Washington State University's College of Veterinary Medicine.

USU Eastern Welding Students Win Big Nationally

USU Eastern students recently took home a pair of gold medals at the annual SkillsUSA National Leadership and Skills Conference, which was held this year in Atlanta. Students in the welding program took home gold in the individual welding contest, as well as the team welding fabrication contest.

Wyatt Hansen of Roosevelt placed first overall in the welding contest. Hansen was required to weld and cut multiple individual projects using several welding processes under a strict time limit. The projects are then judged blindly to prevent bias.

"Toward the end of the competition day, Wyatt's projects had drawn a crowd," said Jake Clement, welding instructor at USU Eastern. "It was easy to tell that Wyatt would be the winner if the decision was left to the public."

Hansen is the second student at USU Eastern to win the SkillsUSA individual competition and the first since 2008. This is the USU Eastern's second gold medal in the competition. The team of **Kenny Bell, Dallin Cardon, and Noah Vergara** also placed first overall in the welding fabrication contest. USU Eastern has won this contest four out of the last five years. During the competition, the team had 6.5 hours to build a charcoal grill from the provided blueprints and materials. The team was judged on weld quality, fabrication skill, print conformity, teamwork and safety. It was USU Eastern's 8th win and 11th medal since the contest was introduced in 2008.



Photo by Levi Sim.

USU Eastern welding students fared well at the recent SkillsUSA National Leadership and Skills Conference, earning a pair of gold medals. It was USU Eastern's 11th medal since 2008.



Institutional membership in NCFDD speaks of USU's commitment to inclusive excellence; offering additional resources that will provide our administrators, faculty, and graduate students opportunities to engage with and learn from others across the country ... Building professional communities of support such as what NCFDD provides is among one of the best strategies for retention and success in the academy.

— **Jane Irungu**, USU vice president for diversity, equity & inclusion, on USU joining the 450-member-strong National Center for Faculty Development and Diversity.



Assistant Professor Awarded Grant for Studying AI Tools in Education

A nearly \$500,000 grant

will help a Utah State University researcher and partners in California develop and test artificial intelligence tools for use in science education.

Ha Nguyen, assistant professor in Instructional Technology and Learning Sciences at USU, was awarded the grant by the National Science Foundation as a co-principal investigator on an Innovative Technology Experiences for Students and Teachers (ITEST) project. Titled *Equity-Centered Design of Conversational Agents for Inclusive Science Communication Education in High Schools*, the project will focus on utilizing AI technology to enhance the way science communication is taught in schools and help students develop a better understanding of scientific concepts. This research represents a partnership between USU, the University of California-Irvine (PI Rossella Santagata), and community partners in Orange County, California (Co-PI Sara Ludovise).

Using recent advances in artificial intelligence, such as ChatGPT, Nguyen will provide leadership in developing conversational agents to be integrated into high school curriculum that will help students learn about science communication and marine biodiversity.



Ha Nguyen is an assistant professor in Instructional Technology and Learning Sciences at USU.

Research Identifies NFL 'Paradox of Integration'

Sociology professors Christy Glass and Guadalupe Marquez-Velarde

belong to a team of researchers taking a closer look at race in the NFL. Their research used data spanning 60 years to show that Black athletes are segregated into the league's highest-risk positions, while White players still dominate the highest-paying roles. The study found that "race was a significant predictor of position status."

Glass, Marquez-Velarde, and their co-authors — researchers from Harvard, Morehouse, University of Massachusetts, and an independent sports analyst — found that while Black and African American athletes make up the majority of NFL players, they have not been given equal access to the most prestigious and lucrative positions within the league.

The study, which relies on a data set of more than 20,000 NFL players from 1960 to 2020, found that Black players are more likely to play in wide receiver, linebacker and safety positions. Previous evidence indicates these roles are more prone to career-ending injuries and long-term neurological damage than positions dominated by white players: quarterbacks, centers and kickers. Together with an epidemiologist and a historian, USU's sociologists teamed up with co-directors of the Football Players Health Study at Harvard Medical School "to analyze racialized patterns in player position and career duration." The data set was provided by Hidden Game Sports, a professional-grade sports database used by major sports media organizations like ESPN.



View the study's findings in the journal *Sociology of Race and Ethnicity*.

Common Antioxidant Shows New Health Benefit

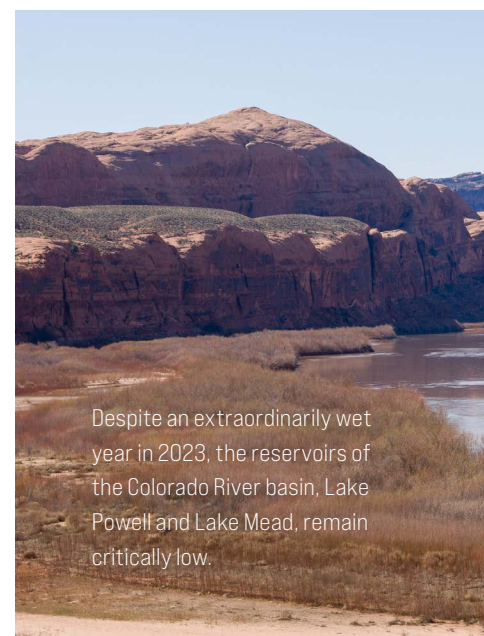
New research shows that polyphenolic compounds, which are commonly found in fruits and vegetables, can be combined with sugar molecules to potentially create life-saving drugs.

Polyphenols are a class of compounds found in many plant-based foods. These compounds help prevent cellular damage in the body and can help to prevent conditions such as cancer or heart disease. However, many of them do not dissolve in water, making it difficult to fully take advantage of their health benefits.

Utah State University's new head of the Department of Biological Engineering, **Jixun Zhan**, and his graduate students, Jie Ren and Caleb Barton, recently published a

comprehensive review article on engineered production of polyphenolic O-glycosides, which allow those polyphenolic compounds to remain stable and soluble through microbial fermentation. The study was published in the most recent issue of *Biotechnology Advances*.

Researchers are using new methods, such as bacterial fermentation, to modify the sugar structures and glycosylation patterns of polyphenols. By studying the enzymes and processes involved in sugar biosynthesis, it is now possible to develop more effective glyco-drugs. Zhan's article summarizes the different phenolic glycosides found in nature and the methods used to produce them.



Despite an extraordinarily wet year in 2023, the reservoirs of the Colorado River basin, Lake Powell and Lake Mead, remain critically low.

USU Strikes Agreement for More ‘Stackable’ Learning Opportunities

USU and Davis Technical College recently created an agreement aimed at helping future cosmetologists and small business owners.

The agreement allows Davis Tech cosmetology students to transfer 44 credits into an associate of applied science degree in cosmetology at USU Eastern. Also, students in the DTC business technology program can now transfer 29 credits to an associate of applied science degree in small business operations and general technology at any USU Statewide Campus.

Stacking a certificate from a technical college into a degree at USU can be a way for students to save time and money in their educational journeys.

“Students who don’t see themselves completing four-year degree programs due to academic, financial, time, or location-based limitations are provided opportunities to obtain skills in their regional locations, at a significantly reduced cost and in a shorter timeframe,” says **Brian Warnick**, head of the Department of Technology, Design and Technical Education in USU’s College of Agriculture and Applied Sciences.

These and other “stackable” degree options allow students who start in the certificate programs to continue their education, allowing them to move from skilled labor positions to management, leadership, and entrepreneurial opportunities and increasing their earning potential.

To learn more about stackable degrees at Utah State University, visit caas.usu.edu/tdte/programs/cte.



LAND & ENVIRONMENT

USU Partners with UDOT for Pollinator Garden



At a rest stop just off I-15 in Perry sits a pollinator garden — a sanctuary habitat for pollinators like bees, birds, and butterflies.

The **Perry Pollinator Habitat** was established in 2021 as part of a partnership between — among other agencies and organizations — the Utah Department of Transportation and USU in an effort to increase public awareness of pollinators and to provide them habitat on existing properties owned and managed by UDOT. The garden is acting as a pilot plot to determine if it would be viable to establish similar habitats at other UDOT sites throughout Utah.

As a part of the work in establishing the Perry garden, a best-practices manual is being developed that will help guide potential future efforts elsewhere in the state. For more information on the project, as well as more information on the Perry Pollinator Habitat, visit the The S.J. and Jessie E. Quinney College of Natural Resources website.

The Perry Pollinator Habitat was established in 2021 to increase awareness of pollinators. Photo by Levi Sim.



Learn more about pollinator habitats.

Crisis on the Colorado

It’s time for a serious reckoning with the way we use water from the Colorado River, and the way forward will be tough, according to a new publication by **Jack Schmidt**, chair of the Center for Colorado River Studies in the The S.J. and Jessie E. Quinney College of Natural Resources, Charles Yackulic of the USGS Grand Canyon Monitoring and Research Center, and Eric Kuhn, retired general manager of the Colorado River Water Conservation District.

The article, published recently in *WIREs Water*, takes a new look at the development and future of the Colorado River crisis. Schmidt and colleagues make a critical distinction between the ultimate and proximate causes of the crisis — although the roots lie in trends for declining watershed runoff in a warming world, the immediate cause is closely tied to society’s inability to adaptively respond to the declining runoff for the past 20 years and more.

The authors show that Lake Powell and Lake Mead, the two largest reservoirs in the United States, lost nearly half their total water storage between 2000 and 2004, and that policy changes implemented thereafter did not result in any significant recovery of reservoir storage. So when the next period of unusually low runoff occurred (2020–2022), the reservoirs were almost drained to the point where hydroelectricity could no longer be produced.

Despite an extraordinarily wet year in 2023, the reservoirs of the Colorado River basin remain critically low — well below 50% of full-pool. Basin-wide water use must be significantly reduced to match the available supply and to allow some recovery in reservoir storage, they said.

Sabau named new USU Athletic Director

Diana Sabau was recently introduced as the new vice president and director of athletics for the Aggies after a national search. She officially took the reins on August 21.

“I’m thrilled Diana will join the Aggie family at the helm of **USU Athletics**. She is perfect for this moment and for elevating Aggie Athletics to the next level,” USU president Elizabeth Cantwell said during Sabau’s introductory press conference.

Sabau (Say-bo) comes to USU with an important and impactful background, most recently serving as deputy commissioner and chief sports officer for the Big Ten Conference, overseeing the administration of all 28 of the conference’s sponsored sports. As the chief sports officer with the Big Ten Conference, Sabau provided swift counsel and measured guidance to the Big Ten commissioner and departmental oversight of football administration, basketball administration, hockey administration, Olympic sports administration and officiating administration.

Sabau also had extensive leadership roles in college athletics prior to joining the Big Ten, most recently as senior deputy athletics director at The Ohio State University. There she served as the sport administrator for football, women’s ice hockey, and the co-ed rifle and pistol programs.

During her four years as sport administrator for The Ohio State University football, the team won four consecutive Big Ten championships, participated in the college football playoffs, and garnered accolades and achievements of considerable national attention.



Diana Sabau comes to USU after serving as the deputy commissioner and chief sports officer for the Big Ten Conference.

USU Student-Athletes Achieve Academic Success

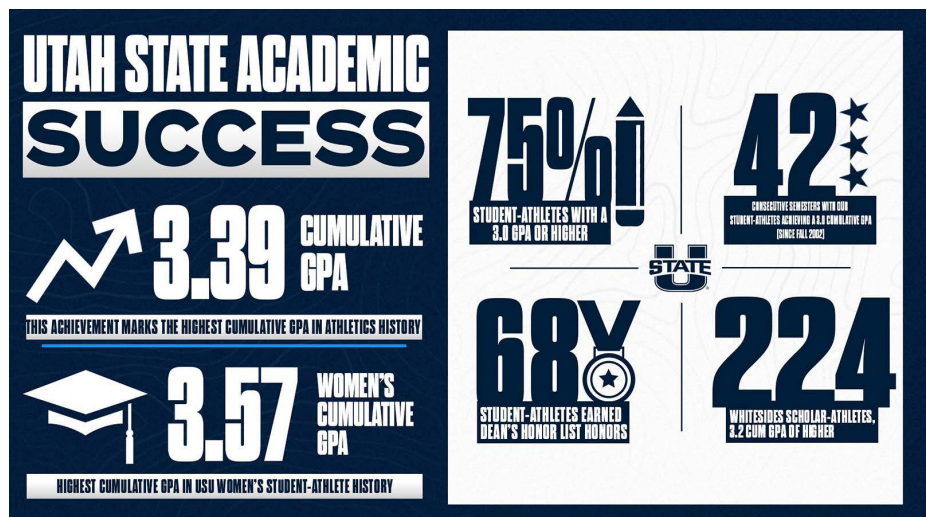
Utah State Athletics is celebrating the academic success of its 355 student-athletes, as the group earned a combined 3.39 cumulative grade point average, the highest cumulative GPA in the history of USU athletics. The spring 2023 semester also marked the 42nd-consecutive term that **Utah State student-athletes** have recorded a 3.0 or higher cumulative GPA, dating back to the fall of 2002.

More than 75% of Utah State student-athletes earned a 3.0 or higher GPA as 68 student-athletes were named to the Dean’s List for having a 3.5 or higher with 15 or

more credit hours. Twenty-eight student-athletes made up a select group of those pursuing a second undergraduate degree or a graduate degree while competing in their respective sports.

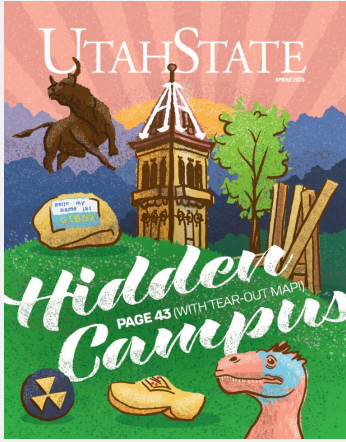
On the men’s side, USU student-athletes earned an overall cumulative GPA of 3.19. On the women’s side, USU student-athletes earned an overall cumulative GPA of 3.57 — the highest cumulative GPA in school history.

Infographic courtesy of USU Athletics.



We welcome your thoughts. Please email letters to mageditor@usu.edu. Please include your full name, address, phone number/email address, and class year, if available, for confirmation of your identity. Letters should be 200 words or less and respond directly to an article in a recent issue of Utah State magazine. Letters may be edited for length, style, and clarity, and fact-checked as appropriate. While Utah State magazine endeavors to publish all letters that meet the guidelines, space is limited, and letters from members of the Utah State community that contribute to a diverse range of perspectives will be prioritized. Letters that violate USU's Principles of Community will not be considered.

SPRING 2023: MOVEMENT



ON THE MOVE

Not having a home computer, I still rely on USPS mail. Hopefully you'll accept this for the compliments on your recent issue.

First, it was great to see the great write-up RE the Lady Aggie athletes. From a student, 1976–78, I was on campus and was conversationally acquainted with one of these talented young ladies. I attended many of their games and saw their skills. They were then, and likely today, ideal representatives for USU. Honors are long overdue.

Second, I enjoyed the “map.” For my time on campus, I was in East High Rise one year and Richards Hall the second year. I would have enjoyed much of the campus history, if only I had known then. I'm a realist — I doubt anyone would recall me by name or face — it's hard to believe it's been almost 50 years! But a small piece of quirky info — If

anyone recalls, on campus from 1976–78, a bright orange Corvette, that was me. Might have been the only one in the area. Compliments on your magazine.

— Charles G. Barnes

MOVEMENT

Loved the articles. Would like to see an article on the different racial/ethnic groups at USU and what they do (i.e. BSU, PSU, etc) and how they feel in the community in Logan.

— Debbie Kemp

HIDDEN CAMPUS

I got in trouble because my aunt saw me on TV when I was a major supporter of the smoke in. This was in 1964, not '66.

— David Call

SUMMER 2023: MEMORY



CHANGE AT THE TOP

One comment ... why the heck did this take so long? This process has held up not only many endeavors on campus but also the hiring of the next athletic director which in today's world of jet-speed athletics puts all of USU athletic teams at a disadvantage to its conference mates and things like recruiting and

scheduling as well as lobbying the national organizations, especially in the major revenue producing sports which often provide funding for minor sports through general university branding and identification of those who may be motivated by this window to the university to give. As they say, a high tide raises all boats, but that is tough when the ships rudder is not manned by one with authority to make binding decisions. Interim AD Jerry Bovee has done a nice job but I believe he would like some certainty as well. As the song from the '80s said, will he stay or will he go.

When I inquired why the Board of Higher Education had not acted in a more swift manner, I was informed that they are all “busy people” and there was “no need to hurry.” I would say that if they are too busy to perform the requirements of their position, then perhaps they should resign so that more available people could fulfill the requirements of the job. In fact, there was a great need to get started and fill this position, not only so the new president could begin the planning for their administration but also

so that the athletic department could receive or confirm their new leader sooner than later and begin to implement their vision for Aggie athletics, no small matter with the current state of student athletes in today's athletic environment and landscape.

I welcome President Cantwell to her new role as the 17th President of Utah State University. I also wish to thank Dr. Noelle Cockett for her years of service and for the work she will continue to do as a faculty member at Utah State. Now if we can get on with the confirmation of a new athletic director, hopefully before fall practices for football begin, then everyone can quit worrying about the swinging sword of Damocles which seems to always be just above someone's neck in athletics.

— Vincent Saunders '81

CONGESTION ISSUES AT SPECTRUM

Refurbish don't glam the spectrum. It's the perfect bball arena for college.

— JR Winn

1940s

Fern S. Balls (Sorenson) '46, Jan. 18, ID
 Jean Bankhead (Mohr) '49, Dec. 26, GA
 Mabel Brown (Bott) '41, Jul. 6, CA
 Larene Burton (Toone) '45, Jan. 11, CA
 Hal Edison '47, Aug. 3, UT
 Marva Lu Egbert (Hillyard) '48, Jan. 14, UT
 Noreen Eldredge (Tingey) '46, Jul. 28, UT
 Cleone Geddes (Hansen) '47, Feb. 4, CA
 Halvor P. Hansen '49, '51MS, Apr. 24, UT
 Charles D. Hendricks '49, Jul. 13, WA
 Edward E. Hill '49, Jan. 27, ID
 Claude Junius Jenkins '49, '50MS, Jan. 5, UT
 Gordon I. Jensen '49, Oct. 5, CA
 Katherine Georgia Mitchell (Mitchell) '46,
 Mar. 2, UT
 Wayne R. Rich '48, '49MS, Jun. 13, UT
 Gloria D. Robison (Adams) '49, Mar. 29, UT
 Estella Romero (Leishman) '49, Jan. 3, UT
 Bybee Salisbury '49, Apr. 2, UT
 Brenda Sorenson (VanOrden) '41, Mar. 24, ID
 Melvin L. Wakefield '49, Jul. 18, UT
 Dorothy C. Wilson (Crookston) '49,
 Apr. 27, CA
 Zelma Woodward (Kunz) '49, Jul. 25, UT

1950s

Shirley Ruth Allen '55MS, Jun. 29, UT
 John G. Allred '59, Apr. 6, UT
 Marvin S. Allsop '58, Jun. 19, UT
 David Neil Anderson '58, Jan. 11, NV
 J. LaMar Anderson '55, Jun. 17, UT
 Thomas L. Arnett '55, Jul. 24, CA
 Edward W. Ashdown '59, Feb. 23, OR
 Corydon S. Bagley '58, Jan. 19, UT
 Scott W. Ballif '58, '71MS, Jul. 29, UT
 Glen R. Benson '56, Jan. 29, UT
 Janetree C. Blair '58, May 20, UT
 Reed Brower '59, Mar. 17, UT
 Kenneth H. Brown '54, Apr. 30, UT
 Rollo H. Brunson '56, Jul. 12, UT
 Kenneth Budge '59, Jun. 29, ID
 Alice E. Buehner (Welti) '53, May 12, UT
 Stephen L. Bunnell '58, Mar. 22, UT
 James Bunting '56, Jul. 18, UT
 Peter D. Burgess '59, Apr. 17, PA
 Ida M. Call (Nielsen) '53, Jul. 30, ID
 Clark Campbell '52, Apr. 15, UT
 John W. Carter '55, Feb. 16, NV
 Val Henry Carter '54, Jan. 30, UT
 Jay Wilson Casper '58MED, '69PHD,
 Apr. 15, ID
 Ruby B. Chadwick (Buttars) '51, Apr. 3, FL
 William Don Chamberlin '58, Feb. 22, CO
 David C. Christensen '53, Jul. 19, UT
 Jerry M. Christensen '53, Apr. 5, UT
 Bill Coghill '55MF, Jun. 24, WA
 Jack G. Couch '58, Feb. 23, OR
 Nick J. Cozakos '52, Aug. 7, ID
 Jack A. Cozack '51, Sept. 21, CA
 Glen L. Curtis '59, May 22, UT
 Arnold J. Dance '54, Feb. 8, ID
 Ted M. Daniels '58, Feb. 2, WA
 David W. Day '50, Apr. 11, UT
 Merrill D. Despain '57, Mar. 7, UT
 Carol Doxey (Willaims) '52, May 26, UT
 Van F. Dunn, Jr. '55, Apr. 11, UT
 William S. Ellerman '52, Jan. 29, UT
 Alfred D. Empey '54, Jul. 30, CA
 Robert T. Entwistle '57, Apr. 11, ID
 Ed Evatz '51, Jan. 12, NV
 John Marvin Fisher '59, Feb. 15, ID
 Barbara Fjeldsted (Croft) '52, Aug. 10, UT
 Valene Fluckiger '56, Mar. 10, ID
 Carl I. Fonnesbeck '53, Jan. 30, UT
 Max G. Fredrickson '59, Apr. 15, UT
 Genniel W. Gardemann (Weaver) '50,
 Jun. 6, UT
 Janice Gardner (Burton) '53, Apr. 11, UT
 Elmer I. Hagloch '54, Jul. 6, UT
 Carol Hall (Stokes) '57, May 27, UT
 M. Spencer Hamilton '59, '61MS, Jan. 20, TX
 Heber T. Hardman '58, Apr. 21, UT
 Jay F. Harner '55, Jul. 31, UT
 Jess M. Harris '55, Mar. 7, UT
 Robert L. Harrison '57, Jun. 23, ID
 Mike W. Hatch '57, May 1, NV
 Barbara H. Helm (Howell) '50, Jul. 19, ID
 Richard J. Hensel '56, Feb. 5, AK
 Bonnie L. Hill (Pugsley) '50, Jul. 30, UT
 Charles C. Hislop '59, '71MS, Feb. 22, UT
 L. Brent Hoggan '59, Jan. 21, UT
 Laconna Hoggan (Purser) '55, Jan. 28, UT
 Nan M. Holyoak (McEachern) '59, Feb. 6, UT

Thomas W. Hornig '55MS, Oct. 2, OR
 Wendell J. Johnson '58, Jun. 11, ID
 L. Paul Jones '53, '59, Apr. 1, UT
 Patricia N. Jones '57, May 31, ID
 Vada L. Jones '59, Jan. 1, OR
 Doug Jorgensen '59, Jan. 19, UT
 Zola E. Jorgensen '50, May 8, ID
 Gary Christian Kapp '59, Jul. 15, UT
 Charles Klamm '57, Feb. 1, MT
 Lena Mae Muehlefer Korth (Muehlefer) '52,
 Jan. 2, UT
 Alma Arden Larson '57, Jan. 24, UT
 Carole J. Lisonbee (Murphy) '51, May 31, UT
 Karen B. Lofgreen '56, Jul. 10, UT
 Joyce Loosle (Sadler) '59, Mar. 30, UT
 Bud E. Lowe '56, '71MBA, Aug. 11, UT
 Kenneth H. Matheson, Jr. '58, Jan. 24, UT
 Richard M. McQuivey '55, Mar. 8, UT
 Donald A. Mecham '58, Mar. 15, IA
 Stan Meyrick '59, Jun. 9, UT
 Gayle Moore (Ormond) '59, Jan. 26, ID
 Irvin J. Moore '57, Feb. 1, UT
 Dallas Ervin Murray '58, '68MS, Jan. 22, UT
 Amir Nejat '54, Mar. 29, CA
 Edward A. Nelson '52, '53MS, Jul. 9, UT
 Laura L. Nelson (Larsen) '57, Mar. 27, UT
 Kirk M. Neuberger '59, Jan. 30, UT
 Mayo H. Nielsen '52, Jan. 10, UT
 Farrel J. Olsen '54, '58MS, Mar. 13, IL
 John D. Olsen '59, Feb. 26, UT
 Gerald R. Olson '56, Jan. 15, UT
 Leon E. Orme '54, Mar. 24, UT
 J. Reuben Oxborrow '56, Aug. 12, UT
 Donald L. Pendleton '57, Jan. 14, UT
 Mark Joseph Perry '58, Jan. 16, CA
 Ted S. Perry '50, Feb. 20, CA
 Harold D. Petersen '54, Jan. 20, UT
 Hal W. Peterson '52, May 10, UT
 Neta Rainey (Thompson) '52, Jan. 13, UT
 Johnny G. Remund '59, Feb. 25, UT
 Elaine D. Rhodes (Dixon) '51, Apr. 1, UT
 Lavar M. Richman '58, '61MS, Mar. 24, UT
 Jay G. Rigby '55, Jul. 8, UT
 Perry T. Roberts '55, Jun. 2, MS
 Jerry Merlin Sanders '55, Jun. 1, UT
 Dee Lon Savage '52, Jul. 31, UT
 Etta Scotter (Pace) '59, Jan. 13, BC
 William J. Skidmore '56, Mar. 6, UT
 Bill D. Snapp '57, Jun. 17, ID
 Glade V. Sorenson '54, Jan. 14, UT
 Kuppuswami Srinivasan '55, Mar. 7, MD
 George Sterling Spencer '59, Dec. 19, UT
 Ellwyn R. Stoddard '52, Jul. 30, ID
 Morris J. Swenson '57, Jul. 4, UT
 Arnold A. Thayer '58, Apr. 3, UT
 Ralph S. Thomas '54, Jun. 8, UT
 Mack W. Tueller '54, Feb. 9, UT
 Lois M. G. VanDerwerken '50, Apr. 10, NY
 Reed A. Watkins '51, Jan. 18, UT
 Jack N. Webster '57, Jan. 3, UT
 Jesse M. Wheeler '55, '80MED, Mar. 8, ID
 Lee D. Wilder '56, Sept. 24, NV
 Mack L. Wilkey '54, Feb. 1, UT
 Major E. McKay Willis '58, '84, Feb. 19, UT
 Leora H. Wilson '51, Jan. 23, UT
 Bob E. Winters '58, Mar. 4, UT
 Dale Horne Workman '57, Feb. 15, UT
 Helen N. Wright (Nielsen) '50, Jan. 29, CA
 Hyra J. Wright (Hatch) '57, Aug. 4, UT

1960s

Jean W. Allred (Watson) '64, '64, Apr. 10, UT
 Diane Anderson (Neilsen) '67, Mar. 22, UT
 Richard J. Andrews '64, Mar. 30, ID
 Thomas Noel Archibald '65, Jul. 21, UT
 Floyd G. Bailey '62, Feb. 23, ID
 Sam J. Bailey '60, Mar. 4, CO
 Barry A. Baker '66, Feb. 8, UT
 Richard T. Barber '62, Apr. 4, NC
 Rey Leroy Barnes '60, '62MS, Nov. 20, OK
 Lowell Sunde Barrick '62, Apr. 4, AK
 Donald C. Bird '65, Feb. 21, ID
 Ronnie Ray Blackham '68, Jan. 28, AZ
 Betsy G. Bodrero (Larsen) '67, Jun. 27, UT
 Ross L. Bradford '60, Dec. 21, CA
 John D. Bradley, Jr. '67, Mar. 30, MA
 Charles W. Briggs '66, '68MS, Feb. 8, ID
 Preston Brooksby '63, Jul. 9, UT
 Richard Lyle Brough '62, Aug. 9, UT
 Dee Glenn Brown, Jr. '67, May 1, UT
 Marilyn Brown (Thompson) '60, Jul. 20, UT
 John J. Brunner III '60, Aug. 17, AZ
 Rose Mary Budge (Pedersen) '61, Jan. 17, AZ

Scott M. Bulloch '61, Jul. 13, UT
 Naomi H. Burton '60, Feb. 16, UT
 Ray Vernal Butcher '62, '68MS, Jul. 15, AZ
 Anson Bowen Call III '64, '71MAC, Jan. 3, UT
 Lyndon Callister '69MS, Feb. 24, UT
 Francis Jay Carlson '69, Apr. 22, UT
 George Major Carnie '67EDD, Dec. 22, AZ
 Douglas James Castleton '66, Jan. 27, UT
 Boyd J. Christensen '67, Feb. 8, UT
 Diane K. Christensen (Hircher) '67,
 Feb. 15, KS
 Leon W. Christensen '64, '66MS, May 11, UT
 Tess C. Christensen (Carlson) '68, Jul. 13, UT
 Linda K. Church (Tucker) '66, Apr. 23, AZ
 Darla D. Clark (Merrill) '67, Apr. 5, UT
 Theron W. Class '69, Feb. 7, CO
 Barbara Clyde (Eliason) '63, Jan. 8, CA
 Carolyn L. Cohoon '66, Feb. 8, WA
 Harold Dean Coleman '62, Mar. 16, UT
 Keith M. Cottam '63, Apr. 9, WY
 Howard K. Couch '63, Jan. 30, OR
 Bruce A. Courtright '63, May 10, CA
 William Kay Cronquist '69, '72MED,
 Aug. 5, UT
 Robert L. Cummings '64, Apr. 26, UT
 Elaine Curry (Angus) '62, Jun. 21, UT
 Pamela M. Davies '68, Jan. 30, AZ
 Dennis Dayton '62, '70MS, Feb. 5, WY
 Gwendolyn W. Dean-Schofield (Warren) '62,
 May 15, NM
 Russell O. Donoghue '62, Jun. 16, UT
 Robert Keith Downs '60, Apr. 20, UT
 Dean C. Earl '67, Jan. 24, ID
 Robert R. Easton '62, Jun. 15, UT
 Marilyn Eckholdt '61, Jun. 26, UT
 Hugh V. Eddy, Jr. '63, Jan. 15, WI
 Larry D. Ence '68, Jun. 28, UT
 David Arthur Erickson '67, May 15, ID
 Neal B. Evans '69, May 25, UT
 James W. Fain '67, '69MFA, May 10, UT
 Wayne L. Frankhauser '65, Feb. 10, ME
 Clinton I. Fudge '63, May 17, NY
 Peter N. Garff '62, Mar. 10, UT
 Horatio D. Gregory '64, Jan. 13, UT
 Wayne Grimshaw '67, Dec. 15, UT
 Craig B. Hanchett '62, Mar. 7, CA
 Alonzo H. Handy III '63, Aug. 3, NV
 Larry Harvard Hansen '68, Jul. 1, UT
 Steven C. Hansen '62, '64MS, Jul. 26, UT
 Annette F. Harris (Fronk) '64, May 29, UT
 Mark F. Harris '60, Jun. 4, UT
 Ralph A. Hart '66, Mar. 24, ID
 Diane Hatch (Ferguson) '65, May 7, UT
 Earl C. Henrie '60, May 3, UT
 Keith S. Hinchley '60MS, Jan. 13, ID
 John C. Hoffman '66, '71MED, Apr. 20, CA
 Richard D. Hoover '64, Jun. 22, MT
 Floyd K. Hopper, Jr. '64, Apr. 2, CA
 Edwin G. Hoskin '67, Jul. 1, NV
 Herman Jack Houston '65, Dec. 24, UT
 Glen R. Hunsaker '62, Feb. 25, UT
 Leon Hyatt '65MS, '69PHD, Apr. 27, UT
 Thomas Emil Isom '60, Dec. 30, UT
 Dean J. James '67, Mar. 4, UT
 Lynn E. James '61, Apr. 12, UT
 Larry S. Jeffery '62, Mar. 13, UT
 Raligh James Jensen '66, Jul. 17, ID
 LeeAnn Johnson (Perkins) '67, Jul. 29, UT
 Ronald N. Johnson '65, May 14, FL
 David D. Jorgensen '63, Apr. 6, UT
 Gholam H. Jorjani '62, Jun. 6, CA
 Steven R. Karren '65, May 13, UT
 Carolyn Kay (Lewis) '66, Jul. 11, UT
 Boyd Keisel '61, '69MS, '70EDS, Jun. 1, UT
 Doyle G. Keiser '64, Feb. 10, UT
 Blaine B. Keller '60, '65MS, May 24, UT
 Pauline Keller (Bundy) '63, Jan. 7, ID
 Sara A. Keller (Alick) '67, '68MA, Jul. 1, UT
 Cordell L. Kendrick '66, Jul. 30, ID
 Marcia P. Kjar '60, Aug. 1, UT
 Paul W. Kotter '67, '71MBA, May 27, UT
 Everett D. LaFollette '69, Jul. 17, UT
 David W. Langrock '64, May 14, UT
 Gene Larkin '64, '68MS, Jun. 15, UT
 Ronald E. Larsen '62, May 9, UT
 Arthur Bruce Laurence '64, Jan. 27, UT
 Marion T. Lauritzen '65, Jul. 17, UT
 Jean Kitchen Lind '68, Jun. 3, ID
 Richard B. Lindsay '67, Jun. 1, UT
 Gordon K. Livingston '60, Mar. 31, OH
 Robert A. Luke '62, '66MS, '68PHD,
 Dec. 29, UT
 Karen R. Lundahl (Ward) '66, Jan. 22, UT
 Joseph F. Lyman '69, Dec. 17, UT

Duane H. Marchant '67MBA, May 12, UT
 Reva Lee Marsh (Young) '69, Feb. 28, WY
 Louis R. Masterson '61, Jan. 1, CA
 Alex B. McFarland '69, Jan. 23, AZ
 Muriel McHardy (Barker) '67, Mar. 20, AZ
 Ronald M. McKinstry '65, Jul. 12, AZ
 Kay McNamara '67, Jan. 23, UT
 John David Merrell, Jr. '68, Jan. 17, UT
 George K. Merrill '61, May 2, UT
 David W. Miles '69, Jan. 28, UT
 Gary Obroy Miles '61, Apr. 21, UT
 Ralph A. Miles '68, Apr. 8, UT
 Patricia D. Miller (Dahl) '61, Feb. 1, UT
 Russell D. Miller '69MS, Jan. 7, UT
 Byron K. Montgomery '62, '65MS,
 Dec. 28, UT
 Thomas Clair Mower '60, Jan. 8, CA
 Lee Wayne Mumford '68, Jun. 2, UT
 Charles P. Nelson '69, May 7, UT
 Linda K. Newell (King) '64, Feb. 12, UT
 Keith H. Nielsen '66, Feb. 15, UT
 Stephen J. Noyes '69, '71MS, Feb. 12, UT
 Dorothy L. Oldham '66, Jul. 18, UT
 John Thomas Owen '64, Jul. 25, ID
 Alfene S. Page (Meyer) '60, '89MS, Jun. 4, UT
 John Wesley Palmer '62, '71MED, Jul. 13, ID
 Edwin C. Parker '68MED, Mar. 2, UT
 George R. Parker '63, Jun. 25, UT
 Byron L. Parkinson '66, Jul. 20, UT
 David L. Peacock '62, Apr. 25, VA
 Michael R. Petersen '66, '85MS, Apr. 21, UT
 Steven Howard Peterson '65, '72EDD,
 Jan. 21, UT
 Reed Lyle Pierson '63, Apr. 6, UT
 Gaylin W. Poulson '62, Jan. 30, UT
 Janet L. Rainsdon '60, Jun. 10, ID
 Thomas L. Randle '66, Jun. 24, UT
 L. Carl Rasmussen '60, Jun. 5, UT
 Lynn Wayne Raymond '65, Feb. 10, CA
 Jerry Dean Reed '61, Aug. 11, ID
 Sharon Reeve '65, Jan. 10, UT
 Walter E. Reim '67, Feb. 21, OR
 Warren L. Rigby '69, Apr. 20, UT
 Douglas K. Rytting '66, Feb. 3, NV
 Jerry W. Sandberg '66, Jan. 18, UT
 Linda M. Sant (Mortensen) '69, Jan. 27, ID
 Jay D. Schvaneveldt '61, Jan. 25, UT
 Hollis D. Shenton '65, Jan. 8, ID
 David O. Shrider '66MS, May 17, UT
 George A. Skidmore '66, Mar. 6, WA
 William T. Slack '61, Jan. 22, NV
 Frank L. Smedley '61, Jul. 9, UT
 Howard C. Smith '68, Jun. 12, AZ
 Mary L. Smith (Nielsen) '68, Jul. 14, CA
 Paul L. Smith '66, Feb. 1, UT
 Sidney W. Smith '66, Feb. 13, UT
 Elayne Sorensen (Leavitt) '66, Jul. 12, UT
 Garth L. Sorensen '68, May 28, UT
 Jake A. Sorensen '66, Mar. 19, UT
 Derek Spriggs '68, Feb. 16, UT
 Patricia B. Squires (Barlow) '64, Apr. 7, NV
 Mary Beth Stock (Knowles) '61, Jan. 10, UT
 Dale E. Swan '69, Mar. 16, UT
 Barbara K. Tate '66, Jul. 10, UT
 Kathryn Ann Taylor '61, Feb. 1, UT
 Daniel M. Teng '63MS, '67PHD, Feb. 21, VA
 Scott Thomas '66, Mar. 17, UT
 Orson L. Treloar '63, '66MS, Feb. 9, NM
 James B. Turner '63, Jun. 10, CO
 Ronald D. Utley '61, Jun. 10, UT
 Jerry W. Valentine '62, Jan. 20, WY
 Margaret A. VanDyke (Kitchen) '65,
 Jul. 13, UT
 James Spencer Ward '66, Jan. 4, UT
 Julia A. Ward (Tippetts) '68, Jul. 3, UT
 Terry G. Ward '63, Jan. 23, UT
 Dixie A. Warren (Larsen) '69, '81MS,
 Jan. 13, UT
 Richard W. Waters '67, Mar. 28, UT
 Craig L. Wiegand '60PHD, Apr. 13, TX
 Kathleen Wight (Hansen) '63, Mar. 8, UT
 Boyd Kenneth Williams '68, Jan. 17, ID
 Shirlene P. Wilson (Palmer) '65, Jul. 23, ID
 Thomas L. Wilson '64, Jan. 20, UT
 Douglas Wood '62, Feb. 13, UT
 Richard S. Wood '65, Feb. 22, UT
 Richard B. Wursten '61, Jul. 2, UT
 Ted G. Zrelak '62, Jul. 1, CA

1970s

David T. Adamson '70, Jul. 8, MT
 Karl J. Alder '70, '72MAC, Mar. 21, AZ
 Juan J. Allred '70, '78MS, Apr. 29, UT

Brent Lewis Andersen '72MS, '76PHD,

Feb. 1, WY
Robert K. Andersen '73, Jun. 15, UT
Steven R. Anderson '79, Jul. 7, IN
Robert C. Ashdown '75MIE, Jun. 21, UT
Keith Barben '73, Mar. 20, UT
Donald G. Barringer '72MS, '93PHD,
Jan. 17, UT

Bill G. Bean '71, Jun. 20, UT
Betty R. Beecher (Rappleye) '72, '77MM,
Apr. 21, UT

George W. Bench, Jr. '70, Apr. 27, UT
Jill D. Birrell (Ferre) '79, Feb. 12, UT
James Raymond Booth '78, Jan. 15, UT
Victor H. Bradbury '70, Mar. 24, NY
Vaughn J. Bradley '74, Jul. 14, UT
Karen E. Brown (Anderson) '73, '75MS,
Jan. 24, UT

Stewart M. Campbell '70, Apr. 6, CO
Roderick L. Chapman III '72, Dec. 25, NH
Wendell P. Child '75, Mar. 27, UT
Edward B. Christensen '77, Jul. 7, UT
Paul R. Clarke '70MS, Mar. 7, NV
Terry Derwood Clawson '72, '73MS, May 2, UT
Karla R. Cranney (Finch) '73, Jun. 12, ID
Wayne A. Crawford '74, Jun. 1, CA
Vicki Lynn Cullen '74, May 20, IN
David M. Curle '70MS, Jan. 26, UT
Stephen P. Daines '70, Jul. 27, UT
Steven A. de Hart '71, Aug. 10, UT
William Elwyn Dunstan III '71, Feb. 16, CA
Rulon M. Ellis '73PHD, Jun. 1, ID

Oliver P. Falkenberg '71, Apr. 6, UT
Russell F. Fjeldsted '70MBA, Apr. 5, UT
Stephen W. Flammer '70, '74MED, Apr. 11, UT
Robert Fleischer '74, Mar. 18, NV
Grace Southam Gardiner '71, Jul. 12, UT
Lloyd D. George '72, Jan. 13, CA
Grant Hacking '71, Mar. 23, UT

Kathleen Kohkonen Hall '77, Jan. 9, AB
Mary Kathleen Hall (Cooper) '72, Jan. 13, UT
Clayton L. Hanson '73PHD, Aug. 3, ID
Denton D. Harris '70, Apr. 10, ID
Bahadurali A. Hassam '72MA, Jun. 8, CA
Yvonne Johnson Haynes '75, '86, Jul. 30, UT
Michael L. Hough '71, Feb. 1, UT
Rand Amacher Johnson '71, May 1, TX
Randall E. Jones '71, Apr. 21, UT

Larry C. Key '72MS, '73EDD, Jan. 16, OK
Allen R. Klein '74MS, Apr. 21, IL
Olea Lovell '76, Mar. 16, UT
Bruce Marler '71, Jul. 6, MD
Mike R. Marshall '72, Apr. 4, UT
Neal Kenneth Matthews '76, Mar. 30, UT
Gordon Vernon Miller '70, Jan. 19, UT
Solomon S. Mirelez, Jr. '73, Jan. 13, MN
Craig Robert Mortensen '73, Apr. 12, UT
Janice B. Nelson (Bagley) '73, Jan. 11, UT
Tamera Cozier Newman '74, '04MS, Feb. 14, UT

Brenda Broberg North (Broberg) '70, Apr. 23, ID
Joan Nykamp (Piquet) '73, Jan. 22, ID
Ronda Harris Olsen (Harris) '72, May 19, UT
Lonnie R. Oman '70, Feb. 18, UT
Martin C. Orr '71, Apr. 23, SC
Margaret R. Panting (Roper) '72, Mar. 19, ID
Terry Dean Perrin '76MS, Aug. 2, ID
Betty A. Rasmussen (Christensen) '70, May 4, UT
Joseph Henry Richards '74MS, Dec. 30, MT
E. Dale Ross '76MS, Apr. 9, UT
Melinda Roth (Anderson) '72, Jan. 30, ID
Raviphan B. Sagarik '73, Feb. 19, ID
Alan B. Shipley '74, Jan. 16, TX
James A. Shorty '79, Jun. 28, NV
Jon Reid Snyder '76, Apr. 25, UT
Richard R. Speechly '74MS, Jan. 6, UT
Richard G. Swapp '70PHD, Jul. 17, UT
Elvin Kay Taft '74, Jan. 9, UT
Leigh Ann Tift (Collings) '78, Jun. 22, WA
Gerald W. Tobin '73EDD, May 16, TX
Joe Tilica '71PHD, Jun. 21, CO
Susan E. Turner (Brasher) '76, Nov. 5, PA
Gloria Norr Uibel '73, Jan. 29, UT
Richard D. VanOrden '71, Jun. 22, UT
David C. Wadley '71, Aug. 9, UT
Pamela Walker '74, Apr. 18, UT
Richard E. Walker '76, Jan. 13, UT
John Francis Watson '70, Feb. 17, OR
June Strate Welling (Strate) '77EDD,
Feb. 7, CA
James Leslie West '73SPEA, '76EDD,
Mar. 10, UT
Steven B. Widner '74, Mar. 1, CO
Laurin Weldon Wilhelm '70, '72MED,
Jul. 9, UT
John M. Wolf '70, Apr. 26, UT
Eldon Lynn Womack '72, '90MED,
Mar. 12, ID
Nicholas A. Young '75, Mar. 14, UT

1980s

Paul Leishman Archibald '83, Jun. 15, UT
M. Dianne Ashmore '88, '91MED, Jan. 13, UT
Steven W. Atkinson '84, Mar. 31, UT
Donna L. Barton (Hansen) '87MED, '91MA,
Jan. 20, UT
Kenneth Erwin Bickel '80, Jan. 28, TX
Vane Orlan Campbell '88MSS, Apr. 29, UT
Bruce H. Clark '86, Feb. 6, UT
Beverly W. Cook (White) '83MS, Mar. 31, UT
Jeffery E. Cox '86, Mar. 2, WY
Steven L. Cox '89, May 25, ID
Marrrium A. Croom (Taylor) '81MED,
Mar. 11, UT
Dale Cecil Cummings '80EDD, Mar. 7, TX
Marko Dutson '82MED, Feb. 1, AZ
Anne Facer (Patterson) '83MED, Jan. 25, FL
Cecelia M. Fife '88MED, Mar. 5, ID
Donna E. Filion '88, Feb. 15, UT
Charles R. Findlay '84, '86MED, Aug. 8, UT
Steven Gertsch '80MED, Apr. 27, UT
Lee Massie Gills '84, May 29, TX
Thaya E. Gilmore (Eggleston) '87, Apr. 16, ID
Glen J. Hamblin '89, Mar. 22, UT
Billee Hatch '87, Apr. 3, UT
Kendall R. Heppie '80, Jan. 22, IA
Craig S. Horne '84, '87MS, Jul. 23, MT
Bonnie Howard '86, Jan. 15, UT
Gary Lee Huff '87, Mar. 8, ID
Thomas Eldon Hughes '81MS, Feb. 14, UT
Craig R. Jeffs '81MED, Apr. 26, UT
Samuel L. Jones '80, '89MS, Apr. 10, UT
Matthew W. Joseph '82, '92, Jun. 21, MN
Grant Kohler '85, Jul. 23, UT
Brian Don Korth '82, Feb. 28, ID
Bryan J. Larsen '86, '95MS, Apr. 16, UT
Eric L. Larsen '85, Jul. 19, UT
Steve G. Larsen '85, Dec. 10, CO
Signe Link '84, Jan. 30, UT
Nancy Lynn Lords (Raub) '84MSS, Apr. 8, AZ
Dorothy B. Malcomson '84MS, Jun. 6, UT
Kerry L. Mann '80MBA, Jan. 5, VA
Carol Mosman (Collins) '81, Apr. 8, UT
Tracy D. Muegge '82MBA, Dec. 23, AZ
Mary Ann Myers (Park) '88, Feb. 7, UT
Robert L. Nagel '86MLA, Apr. 29, UT
Cliff J. Newton '85, May 3, UT
Carol Ann Nyman (Parry) '89MED, May 27, UT
Douglas R. Ohrn '85MLA, Jan. 17, AB
Joy Olson '85, '94MED, May 5, UT
Eva P. Player '89, Jan. 18, UT
Scott H. Porter '89, May 22, UT
Vicki Powell '83, Dec. 23, CO
Lara England Rasmussen '89MED, Jun. 14, UT
Robert W. Reeder '88, '01MSS, Feb. 1, UT
Robert P. Richins '86MED, Jun. 28, UT
Harold M. Roberts '82EDS, Apr. 1, UT
Scott David Roberts '80, '83ME, '91PHD,
Apr. 27, UT
James O. Robertson '89, Jun. 8, UT
David L. Rowsell '87, May 20, ID
Diane D. Russell (Dornbos) '85MSS, Jul. 16, UT
Loujean C. Shaw '81MS, Apr. 8, UT
James B. Skidmore '82, Apr. 30, UT
Russell Dean Smith '80, Mar. 4, WY
Dorene H. Squires '86MED, May 1, UT
Cheryl L. Staley '85, Apr. 4, UT
LaVoy Starley '87MED, Mar. 20, UT
Wanda B. Stimpson '83MS, Mar. 25, ID
Margene N. Stringham (Nielson) '85, '88MA,
May 17, UT
Kathleen S. Stucki '88, Jul. 25, UT
Carol C. Sullivan '81MED, Mar. 1, UT
Robert L. Tate '80, Apr. 15, UT
William D. Thompson '87, Feb. 27, UT
Ray W. Tidwell '82, Jan. 7, UT
Clyde R. Tigner '88, Mar. 21, ID
Tracy E. Turner '83, May 28, UT
Gloria Lee VanSoolen '87MED, Jan. 27, UT
Donald L. Wright '84, Apr. 22, UT
Ngook Lian Yeh '87, Mar. 11, NC

Michael J. Fimian '99EDS, Dec. 28, OK
Dorothea V. Flemett '90, Aug. 6, UT
Marianne Hossner '91, May 29, CA
Bobbie Layne Hull '90, Jul. 25, WA
Lewis David Humphrey '96PHD, May 26, GA
Joan Casperson Johnson '93, Jan. 7, UT
Lisa Jorgensen '92, Dec. 19, NV
Palmer B. Knowlden '95, May 18, UT
Teletha Ann Lambert (Hathaway) '97, Jul. 12, TX
Barbara O. Marchant '95MED, Jul. 13, UT
Melanie G. Mark (Grob) '96MS, May 15, UT
Phillip Merrill '95, Jul. 26, CO
Chris N. Mix '94MSS, Feb. 8, AZ
Richard J. Molony '91, Mar. 5, CA
Alice M. Montgomery (Zoller) '94, Jan. 29, UT
Stephen Leo Moon '98, May 23, ID
Don Ray Nelson '95, Jan. 28, UT
Linda A. Orton '97MS, Mar. 27, UT
Allan R. Porter '90, '95MA, Mar. 5, NV
Kathleen P. Robinson (Patterick) '95MSS,
May 13, UT
Gregory S. Rowley '93, Apr. 7, UT
Audie Seljaas '91, Mar. 27, UT
Brett D. Smith '99, Mar. 24, UT
Cherry Lyn Smith '90, Aug. 2, IL
Georgiann L. Smith '99, Jun. 28, ID
Jeanne Smith '90, Jan. 28, UT
Barbara M. Stubbs '96, Feb. 28, UT
Robert W. Tingey '90, Jan. 9, UT
Beuna M. Tomalino '97, '00, Mar. 16, UT
Irlene R. Utley (Martin) '93MED, Apr. 16, UT
Darrell M. Wilcox '94, Jun. 5, UT
Les A. Wright '96MSS, Jul. 5, UT
Ken A. Zerbe '95, Apr. 10, CT

2000s
Camille Ashby (Christensen) '03, Jan. 24, UT
Pamela S. Bendio '08, Jan. 17, UT
Edna M. Bissell '00, Aug. 7, UT
Margie A. Brock '06, Jun. 30, UT
Jordan L. Call '08, May 9, UT
Alvaro L. Calvimonte '00, Feb. 21, UT
George Castro '07, Aug. 5, MD
Jesi M. Dewey (Wright) '09, Apr. 11, OK
Laura D. Garrard (Young) '03, Feb. 15, UT
Garrick Ashton Hall '00, Feb. 27, UT
Jennifer S. Herrick '02MS, Feb. 26, UT
Larry Lee Holdaway '07MBA, Apr. 21, UT
Angela K. Johnson (Howell) '01, Jan. 19, UT
Marc M. Karpowich '09, Aug. 6, UT
John W. Long '04, Apr. 25, ID
Thomas H. Manning '02, Feb. 17, UT
Connie L. Marshall '04, May 23, UT
Jonathan C. Medrano '04, '15, Dec. 30, UT
Amber A. Olson (Alder) '01, Jan. 5, UT
Vicki Searle '03, Feb. 18, UT
Rob Simmons '09, Nov. 28, AZ
Ronnie D. Snoggrass '05, Apr. 30, UT
Sandra Nicole Strom '05, Jan. 15, UT
Tracy Lynn Taylor '07, Apr. 12, UT
Martha Wallace '07, '09MS, Sept. 15, UT
Forrest J. Webb '02, Jul. 15, UT

2010s
Krysti K. Arnado '15, Dec. 26, ID
Krista Kelley Brown '12, Jan. 29, ID
Cory M. Daniel '19, May 17, MO
Douglas D. Deakin '14, Jan. 4, UT
Jefferson D. Edwards '10, Jan. 25, UT
Kaho Fiefa '12, Mar. 26, UT
Kyle Matthew Gallagher '11, Apr. 25, CA
Kyle R. Hinchcliff '13, Jun. 21, UT
Jake W. Knighton '15, May 22, UT
Jacob R. Mathis '11ME, Feb. 1, UT
Nicole Renee Slighting '22, Jul. 8, UT
Steven Wayne Soffe '10, Mar. 4, UT
Jeremy L. Whiting '19MA, Aug. 1, UT

2020s
Chase L. Allan '21, Mar. 1, UT
Beck Stevens Davis '23, Jan. 1, UT
Emily Anne Fisher '22, Jan. 28, UT
Ginger R. Thompson (Weber) '20,
May 6, WY

ATTENDERS
DeeWayne Frank Adams Jan. 12, UT
Wanda Edstrom Agren Jul. 7, UT
Hanani Stanford Aiono Apr. 18, UT
Melissa Alexander Jan. 19, UT
Derral Allen Jan. 22, UT
Marcia Fannesbeck Allen May 4, UT
Robert D. Allen Apr. 20, UT
Demar Aller Mar. 17, UT

2020s
Chase L. Allan '21, Mar. 1, UT
Beck Stevens Davis '23, Jan. 1, UT
Emily Anne Fisher '22, Jan. 28, UT
Ginger R. Thompson (Weber) '20,
May 6, WY

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Adam Parrish Ashworth Jun. 4, UT
Roger Corey Atcity Jul. 7, NM
Kelli Jan Atwood Apr. 3, UT
Vernon Waddoups Austin Jul. 17, ID
Michael Ray Ayala Feb. 2, GA
Mabel E. Badger Dec. 12, WV
Caroline Baer Baird Apr. 21, UT
Barbara N. Balch Apr. 20, UT
Richard Carl Balderston Jan. 26, UT
Karma H. Balling (Horlacher) Apr. 21, UT
Clyde Banner Jan. 13, UT
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Doris F. Behling (Funk) Mar. 4, ID
Marlene Bennett Dec. 17, UT
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Katerina Bissell Apr. 4, UT
Marjorie Bitter (Bennion) Feb. 27, UT
Robert J. Blake Mar. 10, UT
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Allan Jordan Brady Aug. 6, TX
Judy Brady Feb. 14, UT
Dorothy Bramwell Mar. 20, UT
Treven D. Brazier Jan. 2, UT
Sharon Brinker (Atkinson) May 1, UT
Beth Brooksby (Homer) Mar. 6, UT
John Marshall Brough Feb. 3, ID
Andrew Brown Dec. 21, UT
Ben Brown Jan. 21, UT
John K. Brown Jul. 4, UT
Joy J. Brown (Jackson) Feb. 15, UT
Melanie Bryson Jan. 6, UT
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Jim Bullen May 13, UT
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Doug Burge Jun. 18, UT
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Marie Cosgrove Jun. 21, CA

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Earl William Anderson Jan. 28, UT
Brian James Anderson Jul. 17, UT
David

Connie Coss Mar. 24, UT
 Joseph Cox Apr. 14, TX
 William Cox Dec. 17, CO
 Susan Wilson Craner (Wilson) Jan. 31, IL
 Lois Crowell Feb. 5, UT
 Claude B. Crozier Feb. 5, UT
 Karen F. Curinga (Fotheringham) Jan. 29, CO
 Todd G. Curtis Mar. 18, UT
 Teresa M. Dahle (Montella) Apr. 27, ID
 Alan C. Davido Jan. 17, UT
 Glade W. Davis Feb. 9, UT
 Cathy Dawson May 1, UT
 Norman Dell Decker Jun. 3, UT
 Derick Deeben Jun. 18, UT
 Michael James Dennis Jul. 29, UT
 Stan Dennis Jun. 24, AL
 Benjamin J. DiCaro Jul. 23, UT
 Maurine Bird Douglas Jul. 7, UT
 Trudie Hoffman Downs (Hoffman) Apr. 14, UT
 Anna Dransfield Dec. 24, ID
 Jon D. Duncan Dec. 26, UT
 Sarah Dunford Jul. 17, ID
 Ann Dye Feb. 1, OH
 Larry Elkins Jan. 14, UT
 Charlotte Hale Elliott Apr. 18, UT
 Erlinda Debbie Espinoza Jan. 9, UT
 Gary Espinoza Jun. 16, UT
 Johnnie L. Espinoza Jan. 14, UT
 George Evans Jan. 23, UT
 Stacy L. Everett Dec. 17, AZ
 Colleen E. Evridge Aug. 10, UT
 Darla Fairbanks Dec. 19, UT
 Gary William Farnes Jun. 30, UT
 Richard Fazio May 13, UT
 Beth H. Ferguson Apr. 3, NV
 Robert W. Fitzgerald Apr. 23
 Tyson J. Florence Mar. 27, UT
 Scott Wilson Flyte Feb. 20, AZ
 Jerry E. Fonesbeck Jul. 25, UT
 Adam Forsgren Jun. 10, ID
 Thomas Adam Forsgren Jun. 10, ID
 Don Leslie Fouts Jan. 8, ID
 Jackie Lee Fox Jan. 26, UT
 Ryan Lee Fox Jan. 26, UT
 David Fryer Mar. 8, UT
 Janene Thomas Gandee Jun. 15, UT
 Ashley Rose Garrard Dec. 30, UT
 William Edward Garrard Feb. 5, ID
 Robert A. Gentry Jan. 30, UT
 John Milton Giorgis Apr. 20, WY
 Larry Lenard Gittins Apr. 9, UT
 Jim C. Gluesing May 14, CO
 Alton A. Goodin May 19, UT
 Joan R. Goodwin (Rhodes) Jul. 25, UT
 Justin Green Feb. 18, UT
 Randy Griffin Jan. 25, UT
 William Griffiths Mar. 13, UT
 Marcy A. Gross Jul. 8, UT
 Patrick L. Gross Apr. 28, UT
 Roy L. Grover Mar. 19, UT
 Christopher Alan Grow Feb. 20, UT
 John William Guilfoyle Feb. 17, CA
 Earl Peter Gurr Jun. 19, UT
 Rosalie M. Gutierrez May 16, UT
 Ronald Wayne Haider Jun. 7, UT
 David Hales Jan. 22, NM
 Charles Hamilton Jan. 19, UT
 William L. Hamilton Jan. 16, UT
 Spencer L. Hancey May 29, UT
 Wayne C. Hancey Jan. 30, UT
 Mary Hargreaves Apr. 8, UT
 Rulon K. Harrison Apr. 24, UT
 James Daniel Harvey May 8, UT
 Leola Rae Hatch (Dalley) Jul. 18, UT
 Shelby Hatch Mar. 15, UT
 Fredrick Jones Hawkes Jan. 3, UT
 Jimmie Haws Jul. 24, UT
 Carla C. Hayes (Cole) Nov. 7, CA
 Michael C. Hayes May 17, UT
 Lisa F. Heath Mar. 31, UT
 Robyn A. Hedegaard Apr. 29, WA
 James Henderson Dec. 30, NM
 Beverly Bruening Hileman Jul. 21, UT
 Derek Cordell Hill Jul. 13, UT
 Richard C. Hinds Apr. 8, PA
 Christopher John Hislop Mar. 18, UT
 Benjamin Hogan Apr. 8, UT
 Rozanne Hogan (Cannon) Apr. 15, OR
 Lynn Harrison Hoggan Jul. 30, ID
 Bruce M. Hoggard Jun. 24, UT
 Louise Sandin Holman Dec. 28, UT
 Dean Howard Feb. 22, UT
 Ross Howells Mar. 8, UT
 Karl Huffman Mar. 19, UT
 Andrew J. Hummel Apr. 23, UT
 Paula A. Humphrey Jun. 6, UT
 James C. Hunn Jul. 31, AZ

Clark Hunt Jan. 25, AZ
 Darwin Hunt Jan. 29, UT
 Jacob A. Huppi May 5, UT
 Judy Hurdman May 19, UT
 Barbara A. Ing (Lasley) Mar. 12, CO
 Jared Martin Isaacson Jul. 12, UT
 David R. Jacobsen Dec. 28, UT
 Dianne G. Jensen Jul. 7, UT
 Hazel H. Jensen Mar. 22, UT
 Kent Burton Jensen Jan. 26, UT
 Kent C. Jeppesen Jul. 30, UT
 Merle Jeppesen Dec. 13
 Guy Dean Jewkes May 17, UT
 James Lile Johnson Aug. 6, UT
 Jay R. Johnson Apr. 9, UT
 Jeffrey Heber Johnson Jul. 14, OR
 Larry Johnson Jan. 25, UT
 Shellie A. Johnson May 2, UT
 Loa Gaye Jones Jan. 7, KS
 Wanda R. Jones Jun. 12, CA
 Lenore Hansen Jorgensen (Hansen)
 Mar. 10, MT
 Mark Justice Mar. 5, UT
 Diane Kay May 25, ID
 Rickie V. Keele Mar. 16, CO
 Lorna Rae Keller (Hansen) Jun. 21, UT
 Stephen R. Keller May 1, UT
 Fredrick Wilson Kenley Feb. 27, AK
 Kathleen A. Kenworthy (Kearney) Apr. 26, ID
 John S. Kerr Jul. 13, UT
 Scott C. Killian Jul. 17, UT
 Garth Kinder May 22, UT
 Steven A. Kinney Apr. 5, AZ
 Judith Kinzel Dec. 21, ID
 Ferral H. Knight Jan. 19, AZ
 Douglas E. Knotts Jun. 9, CO
 Janice Nelson Larkin Apr. 12, UT
 Aullen Larsen Feb. 12, UT
 Franz C. Larsen Jul. 21, UT
 Gary Larsen Jan. 11, UT
 Shirley Larsen Apr. 16, ID
 David P. Larson Aug. 2, MT
 Alma Lawrence Apr. 28, UT
 Candice Lawrence Jan. 20, UT
 Fon Leamaster Jan. 28, UT
 Chad D. Leishman Jun. 12, UT
 Jerry Lemon May 8, UT
 Loraine Lenhart Mar. 7, UT
 Terry M. Lewis Feb. 16, AZ
 Daniel Frank Lind Jul. 13, CO
 George W. Lindquist Jan. 23, TX
 Kenneth Frank Ling Jul. 3, ID
 Ross Linnell Dec. 31, UT
 Amy L. Linville May 2, UT
 Margaret Livingston (Bergeson) Mar. 18, UT
 Catherine Lloyd Jan. 17, AZ
 Deborah Lloyd Jan. 12, UT
 Sandra Lobato Jan. 13, UT
 Ann Loney Jan. 11, UT
 James Marty Lunnen Jan. 23, UT
 Trevor Dean Mabey Mar. 21, UT
 Jeffrey L. Mace Jul. 20, UT
 Amanda Maddox Apr. 27, UT
 Newell Clyn Mann Jul. 7, UT
 Lisa Kathleen Mariano Apr. 22, UT
 Michael Marshall Jun. 22, AZ
 Craig L. Martinsen Feb. 7, NV
 Gordon Mathie Apr. 30, UT
 William Mathis Mar. 8, UT
 Connie Maughan Feb. 8, UT
 Curtis Ivan May Jan. 6, UT
 Ryan Joseph May Jun. 13, UT
 Jana W. McGettigan (Wright) May 29, UT
 Monty R. McKendrick Mar. 1, UT
 Donald L. McMahon Jan. 24, MI
 Jerry E. Mecham Jan. 18, UT
 Marsha Meikle Aug. 4, UT
 Randolph Melendez May 27, NV
 Erika Merrill Jan. 26, UT
 Fay LeRoy Messinger Jan. 28, ID
 Mark Frank Miller Apr. 21, NV
 Wayne D. Miller Jul. 18, UT
 Delwin Butch Mills Mar. 7, UT
 Ruby Montano Apr. 9, UT
 Delee Montoya May 1, UT
 David S. Moody Jan. 29, UT
 Morgan Moon Apr. 25, UT
 Sally Mosher Mooney Jan. 19, NV
 LouAnn Ellison Morgan Mar. 26, UT
 Nancy R. Morgan (Robertson) Jan. 29, UT
 Brent C. Morrill Apr. 9, KS
 Kevin Dean Mortensen Feb. 14, UT
 Randal A. Moyer Feb. 26, ID
 Lorie Jean Moyes Apr. 29, UT
 J. Muir, Jr. Jul. 1, ID
 Erma Hurst Myers Mar. 7, UT
 Stanley C. Nate Mar. 14, UT
 Joyce C. Nation Feb. 7, UT
 Nadine O. Nay Jun. 12, UT

Dean F. Nelson Jan. 16, UT
 Gerald E. Nelson Feb. 8, MT
 Katherine S. Nelson (Smith) May 2, UT
 Monty A. Nerhercott Jul. 11, MT
 David Newey Jul. 30, ID
 Joyce Ocken Jan. 7, CA
 Ernest Whitney Oldham, Jr. Mar. 31, UT
 Gordon O. Oliverson Jul. 1, UT
 Kasi M. Olsen Jan. 31, UT
 Myrna P. Olsen (Petersen) May 23, UT
 Eileen Tolman Olson Jun. 21, CA
 Frank H. Olson Apr. 29, WA
 Gennie Y. Olson Mar. 26, UT
 Sherma Stallings Oram Apr. 17, UT
 Beth Marie Orron (Anderson) Mar. 31, UT
 Bart Flannery Palmer Feb. 3, UT
 David Palmer Mar. 28, UT
 Heber C. Parker Jan. 31, UT
 Sharon Parkinson (Berry) Feb. 23, UT
 Christina S. Pasler Mar. 22, WA
 William S. Pendleton Jun. 25, UT
 Justice F. Pendray Apr. 27, UT
 Anna Marie Perkins (Bankhead) Feb. 24, UT
 Dawn Perkins Apr. 3, UT
 Dennis R. Peterson Apr. 19, UT
 Farrell Peterson May 12, UT
 Joy S. Peterson Apr. 20, UT
 Peter Lloyd Peterson Jul. 21, ID
 Ruth L. Peterson (Lundgreen) May 8, UT
 Lynne M. Pexton Jul. 17, UT
 Don F. Phillips Jan. 22, NV
 Wayne G. Phillips Mar. 16, ID
 Lorraine L. Pierce Feb. 15, UT
 Willard Morris Pitcher Apr. 18, UT
 Aaron J. Pittman Feb. 15, UT
 Frank Politano Jan. 31, UT
 Barbara B. Porter (Baker) Jan. 15
 Myron Leroy Powell Jan. 26, WA
 Orson Eugene Powell Jun. 22, UT
 Robert Q. Powell Jun. 15, UT
 Sue Price (Roth) Jan. 16
 Wilford John Price Feb. 1, ID
 Eric A. Priebe Jan. 29, UT
 Gayla Proffit (Schwartz) Aug. 8, TX
 Duane Quinn Apr. 22, UT
 Winona P. Ramage Feb. 27, UT
 Carlos R. Ramirez Jul. 21, UT
 Gregory L. Ramsdell Aug. 2, ID
 Christy A. Ranzenberger (Watts) Mar. 14, CO
 Gary Rasmussen Jun. 26, UT
 Wayne D. Rasmussen Jun. 23, UT
 Tess F. Rawlinson Jul. 12, UT
 Don B. Reddish Mar. 11, UT
 Donald G. Reed Mar. 12, WA
 Merlin Reeder Feb. 21, UT
 Tommy M. Reid Jun. 27, UT
 Reuben W. Rhees Jun. 27, UT
 Douglas Dale Richards Jan. 7, WY
 Calvin Richins Jun. 5, UT
 Nathan Wanner Ricks Jan. 2, UT
 John Patrick Riding Feb. 18, UT
 Keith R. Riley May 7, UT
 Elizabeth Ritchie Feb. 27, UT
 Bryant K. Roberts May 24, MO
 Jana Roberts Apr. 6, UT
 Neil Odell Robertson Mar. 13, ID
 Arthur Robinson Jan. 3, MA
 Dan Sterling Rogers Jul. 9, UT
 Devan Rogers Jan. 1, UT
 Howard John Rogers Apr. 16, UT
 Dorothy Rooney Dec. 22, NY
 Eugene Dale Ross, Jr. Apr. 9, UT
 Larry S. Ross Feb. 4, UT
 Brent Rowland Dec. 19, UT
 Cameron Rutherford Jul. 25, UT
 Annie Rydaldch (Davis) Jul. 19, ID
 Paige Judith Rydaldch Jan. 17, UT
 Nettie Vigh Salmon Apr. 17, UT
 Fred M. Sandoval Jan. 31, NM
 William Arthur Sandstrom Feb. 26, UT
 Corey B. Savage Feb. 25, UT
 Morgan Meade Sayes Jul. 8, UT
 Benjamin Schiess May 4, ID
 Marvin Parker Schmid Feb. 22, UT
 Brock Scholes Jan. 23, UT
 Allen R. Schvaneveldt Feb. 14, UT
 Nancy Kathleen Scott Jan. 10, UT
 Sharol Joy Searle (Woodbury) Jul. 12, ID
 Raymond A. Sears Jan. 15, AZ
 Michael T. Sharp Mar. 2, UT
 Anna Shell Mar. 23, UT
 Roger Shepherd Apr. 24, UT
 Rachael Elizabeth Shook Dec. 28, OR
 Kenneth L. Shumway Jan. 1, UT
 Sandra H. Slade Mar. 10, UT
 Betty Ruth Slingerland Mar. 14, UT
 Arthur Yates Smith Jan. 25, UT
 Colleen S. Smith May 5, UT
 Dickerson James Smith Apr. 21, WY

Earl Brent Smith Jan. 26, UT
 LuDean Anderson Smith Jul. 26, UT
 Trent Wayne Smith Feb. 6, ID
 Joyce Mesler Snapp Apr. 29, ID
 Donny Somers Jan. 17, UT
 Edward Benjamin Sommers Jan. 1, UT
 Rawlin Dee Spencer Jan. 2, UT
 Bonnie June Stenquist (Parker) Aug. 8, ID
 Arlene H. Stephenson Jun. 18, CA
 Connie Stevens Feb. 26, UT
 Connie June Stevens May 8, UT
 George Stevens Jan. 21, IL
 Anna Beth Stevenson May 1, UT
 Marjorie K. Stocks (King) Jul. 20, UT
 Timothy Kim Stoddard Nov. 22, WA
 Helen Mae Stradley Jan. 17, ID
 Sherman Strate Jul. 17, UT
 Ed Strickland Apr. 22, UT
 Jennifer C. Summers Jul. 20, TX
 Irving Swasey Jan. 17, OK
 Germaine Tanner Mar. 14, UT
 Jeffrey O. Taylor Jan. 28, UT
 John T. Taylor Jan. 31, ID
 Boyd M. Terry Apr. 10, UT
 Donna Marie Thomas Jul. 13, NV
 Russell Thomas Mar. 21, UT
 Lewis Lamar Thorpe Apr. 17, UT
 Ivan Tidwell Oct. 11, UT
 Sally Ann Timothy Jan. 22, UT
 Jon M. Titus May 10, UT
 Harold J. Trussel Jun. 20, UT
 Brad G. Turner Mar. 18, UT
 Robert Turri Mar. 26, UT
 Delma Rae Udy Jan. 30, ID
 Dennis Udy Jan. 14, UT
 David VanWagoner Apr. 21, UT
 Mark P. Veeder Jan. 27, UT
 Durward H. Wadsworth Mar. 22, TX
 Iva L. Wadsworth Jul. 29, UT
 Edythe A. Wagstaff Mar. 29, UT
 Kerry Wagstaff Mar. 12, UT
 Shirley Jean Wagstaff (Jessen) Jul. 18, UT
 Charles Wake May 23, ID
 Elen Wallace Jul. 16, UT
 Florence M. Wanzitz Mar. 10, UT
 Beverly Jean Ward Mar. 8, ID
 Robert Bruce Warren, Jr. Mar. 22, MD
 Lelsle S. Watkins (Stevenson) Aug. 3, UT
 Merry T. Watkins May 12, UT
 Stewart Duane Wayment Apr. 27, UT
 Bruce H. Wheatley Jul. 29, ID
 Renee W. White (Williams) Feb. 22, ID
 Garn Blood Whitesides Jul. 11, CA
 Dawn O'Rae Whitney Jun. 30, ID
 Marcia C. Whitney (Hamilton) Jun. 14, UT
 Anne Wilde Apr. 20, UT
 Jetta Leola Wilde Apr. 4
 James Robert Williams Apr. 18, FL
 Larry D. Williams Feb. 28, UT
 John H. Willie Feb. 24, AZ
 Carolyn Gene Wilson (Pingree) Jul. 15, UT
 Joyce Wilson Apr. 9, UT
 Sharleene Ann Wilson Mar. 4, UT
 MaRee Wolley Apr. 2, CA
 Dan E. Wooden Jun. 28, UT
 Joyce G. Woodward (Gardner) May 10, UT
 Holly Wright Jun. 4, UT
 Teddy Adakai Yazzie Feb. 1, NV
 William Dwayne Yeaman Feb. 4, WY
 Joseph A. Zemaaitatis Jan. 2, NM
 Raymond H. Zingler May 11, SC
 Gary Zubal Mar. 20, UT
 Edward Zurcher Jan. 11, WA

EDUCATORS

J. LaMar Anderson Jun. 17, UT
 Betty R. Beecher Apr. 21, UT
 Tess C. Christensen Jul. 13, UT
 Ronney D. Harris Apr. 24, UT
 Trudy G. Hess Apr. 22, UT
 Yun Kim Mar. 8, UT
 Li Li Apr. 14, UT
 Gerald H. Miles Feb. 26, UT
 Elwin C. Nielsen May 28, UT
 Marilyn Nolen Apr. 13, TX
 Ronda Harris Olsen May 19, UT
 Linden A. Peterson May 14, UT
 DeAnn Redmond Jun. 16, UT
 Wayne R. Rich Jun. 13, ID
 Kathleen P. Robinson May 13, UT
 Jay D. Schvaneveldt Jan. 25, UT
 Gerald Sehlike Apr. 12, WA
 Arthur Yates Smith Jan. 25, UT
 Kendall J. Staggs May 11, OR
 Gary L. Wheeler May 28, ID
 Paul A. Wheeler Mar. 24, UT

“ The Huntsman School of Business not only has amazing courses, but also facilitates so many experiences outside of the classroom. I was able to attend a Women in Business club event where we traveled to several companies in the Salt Lake area and got to know a tech recruiter at Pluralsight. Through this personal connection, I interned as a Machine Learning Engineer and received a return offer to be a Data Scientist following my graduation.

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‘END OF AN ERA’

as South Campus Residence Halls Come Down

By Jeff Hunter '96

When driving past the south side of the USU campus with her family in the car, Michelle Hoggan routinely pointed out the location of her first-ever apartment in Logan to her three children.

A native of Vernal, the former Michelle Kinsey enrolled at USU in the fall of 1987 and promptly settled into a six-person living space in Ella V. Reeder Hall with her twin sister, Shana, her aunt, Annette Muir, and three other young women. Located just off 400 North/U.S. Hwy. 89, Reeder overlooked the Island neighborhood of Logan, as well as the mouth of Logan Canyon and the Bear River Mountains.

“We thought the view was beautiful, especially coming from Vernal where it’s really the dry desert of Utah,” Hoggan says. “It was so close to the mountains and having that view of the canyon was just gorgeous. And you could look over and see the Island and the temple, and the mountains and all the trees. We thought it was the most beautiful place ever.”

Hoggan recalls herself and Annette hosting a “romantic lasagna dinner” on the roof of Reeder Hall for a couple of young men, which came to abrupt end due to some heavy wind blowing out of Logan Canyon. She also remembers dances, talent shows, Halloween parties, slamming her thumb in a door just before leaving for Thanksgiving — “Those doors were so heavy” — and occasionally cranking up the oven and leaving the door open to warm up.

“I thought it was just a really soft and easy landing for me coming out of living with my parents,” Hoggan notes. “There were times I got homesick early on, but I think it was probably the very best situation for me being away



“Just completed on the campus are the beautiful, ultra-modern women’s residence halls. **HERE STUDENTS RESIDE IN HOME-LIKE CONDITIONS AND ENGAGE IN FAMILY-TYPE LIVING.**

The interchange of ideas and the interaction of personalities add substantially to the student’s education.” — Descriptions of Reeder, Greaves, and Moen halls from a 1956 brochure Titled *Your Guide to Utah State*



Initially built in 1955 as women-only dormitories, the Reeder, Greaves, and Moen residence halls are being torn down to make way for three new campus structures. Those include a new five-story housing facility, a parking structure, and the Kem and Carolyn Gardner Learning and Leadership Building that will house the Jon M. Huntsman School of Business’ experiential learning program. Photo by Levi Sim.

from home for the first time. There was always something fun to look forward to.”

Now a resident of Smithfield, Hoggan and her husband, Steve, still regularly visit the USU campus to walk the grounds. And even though she knew it was coming, she was still stunned in early August to discover large pieces of Reeder Hall had been torn away as part of a demolition effort last summer that also included Reeder’s nearby sister residence halls, Ethelyn O. Greaves and Johanna Moen.

“I remember the university putting something on Facebook about Reeder being demolished, but it just never seemed to come down,” Hoggan says. “Then one day it looked like a bomb had gone off. I just couldn’t believe it as I peeked through the fence.

“It was kind of a building that I thought would never die.”

Following the removal of the trio of three-story residence halls, which were built in 1955 and served as women-only dormitories until the early 1990s, the campus space will be utilized for three new structures.

Prior to being torn down, Moen Hall was the western-most building of the three and was separated from Jon M. Huntsman Hall by just a sidewalk. Its former footprint will eventually accommodate the Kem and Carolyn Gardner Learning and Leadership Building, a 45,000-square-foot, \$30 million structure that will house the Jon M. Huntsman School of Business’ experiential learning programs.

The space where Greaves and Reeder halls stood will be filled by a parking structure and a new five-story, apartment-style housing facility. Eventually, Merrill Hall, which was built the year after the trio of halls to the west, will come down and be replaced by a sister residence hall.

Whitney Milligan, the director of Residence Life at USU, says each of the recently demolished South Campus housing structures accommodated about 70 students. In order to offset the loss of living space, she says it was decided to postpone the demolition of Mountain View Tower until after the new residence hall is completed.

“Mountain View was technically supposed to be torn down after Canyon Crest (Suites) opened up, but it got pushed back once the decision was made for Reeder and the others to come down,” Milligan explains. “So, we’re going to keep it going as best we can until at least the new residence hall because there’s a pretty high demand for housing right now.”

That was also the case nearly seven decades ago when Reeder, Greaves and Moen became the first new women’s dormitories at what was then known as Utah State Agricultural College since Lund Hall was built in 1938. In a small brochure published in October 1956 titled *Your Guide to Utah State*, the as-yet-to-named buildings were a huge selling point:

Just completed on the campus are the beautiful, ultra-modern women’s residence halls. Here students reside in home-like conditions and engage in family-type living. The interchange of ideas and the interaction of personalities add substantially to the student’s education.

Like Hoggan, Milligan also lived in the South Campus residence halls in the ’80s, settling into Reeder Hall for two years in 1984 before moving over to Moen for her junior year, where she took on the role of resident assistant.

Milligan, who has worked for USU ever since, says she has lived all over campus, but Reeder and Moen were “by far my favorites.”

“It was a blast,” the Sandy native declares. “I came up with one of my best friends from high school, and it was just a lot of fun having roommates from all around the state.”

Known collectively as “MGR,” Milligan says each building would design T-shirts for the residents each year, create spook alleys in the basements, and get together in the TV lounge to watch their favorite soap opera every afternoon.

“We would schedule our classes so that we could all watch it; there would be like 20 of us down there watching *Days of Our Lives* together every day,” she says. “We actually even had a *Days of Our Lives* party where we all dressed up as the different character.”

Milligan remembers keeping in touch with her parents via a single payphone in the common area and laying out in the sun on the third-floor deck on warm spring days.

“My mom would call every Sunday night, and whoever was closest to the phone would just answer it and come find me,” she says.

In addition to her memories, Milligan says she has some scrapbooks full of photos from her time at Reeder and Moen halls. And a thoughtful friend from USU Facilities also managed to salvage the metal “R” from the front of Reeder Hall for her before it was torn down.

“It’s the end of an era, for sure, having those buildings go away,” she says. **A**

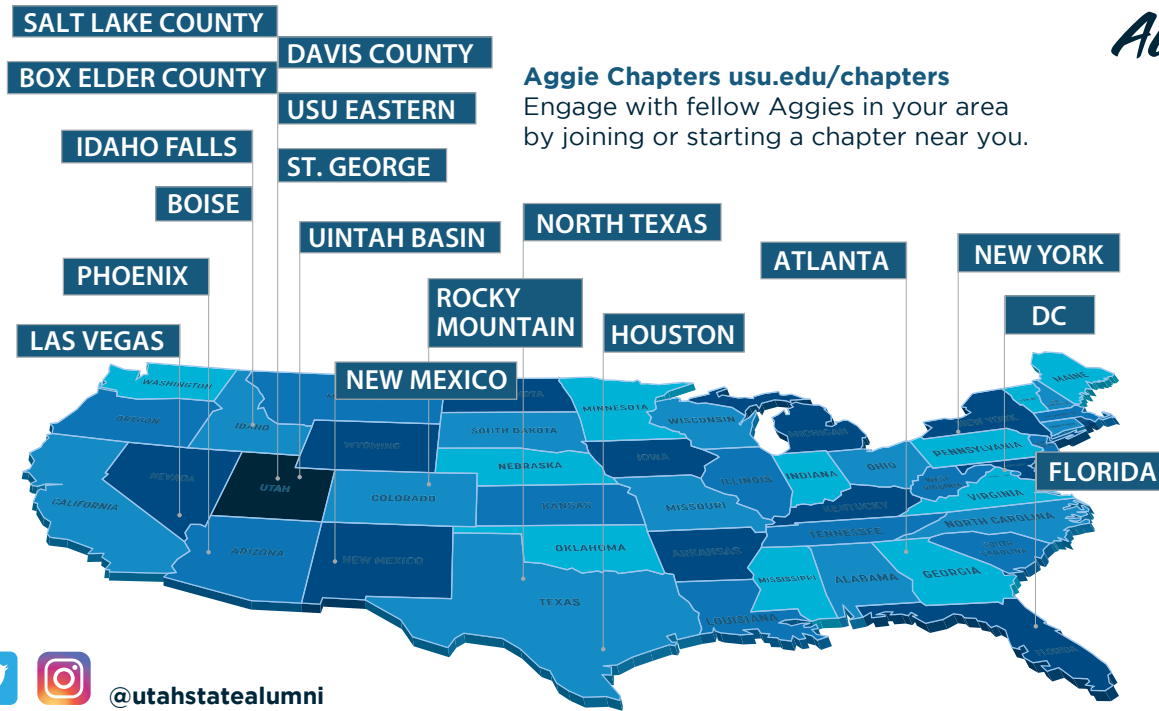
“It was kind of a building that I thought **WOULD NEVER DIE.**” — Michelle Hoggan

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