the Wire

SWCA

News from SWCA Environmental Consultants Volume 18, Number 2 | 2018

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FOCUS:
RESTORATION

By Joseph J. Fluder, III, CEO

One of our focus areas at SWCA is restoring healthy ecosystems following events such as fires, floods, and other land disturbances. We partner with clients nationwide on projects that include elements of restoration. And the concept of restoring and maintaining balance is implicit in SWCA's purpose statement: to preserve natural and cultural resources for tomorrow while enabling projects that benefit people today.

In this issue of *The Wire*, we're featuring stories of restoration in the literal and figurative sense. In Southern California's Angeles National Forest, our ecological restoration team is partnering with organizations to restore aquatic passage channels following several devastating wildfires (see page 3). It's an exciting project that offers some unique and creative challenges.

Meanwhile, in Utah, our archaeologists and historians helped make sense of an unusual discovery on a construction site at the University of Utah (see page 11). Their work helped restore pieces of history that had not been previously documented.

And in the figurative sense, we look to find balance within our company and strengthen our teams of employees. Such was the case when one of our cultural resources teams decided to embark on a backpacking trip in Grand Gulch, Utah. They not only learned valuable lessons in problem-solving on the trail, but they used the opportunity to monitor valuable cultural resources sites on public lands. We think you'll find their takeaway messages valuable.

Thanks for reading, and please feel free to reach out. We look forward to connecting with you. ■

Joseph

WHAT WAS LOST:
PRESERVING HISTORY AND POST-FIRE RESTORATION IN ANGELES NATIONAL FOREST

By The San Francisquito Canyon Project Team

For the nearly 18 million residents of the greater Los Angeles metro area, Angeles National Forest is a stunning backyard. Spanning 700,000 acres, the forest flanks the city to the north and east and includes the San Gabriel Mountains and the San Francisquito Canyon watershed, home to many historical, cultural, and ecologically significant sites.

In addition to being a popular area for recreation, Angeles National Forest is also a unique ecosystem that supports threatened and endangered wildlife. Increased fire activity throughout Southern California is jeopardizing these unique landscapes. This fire activity has long-term, lasting effects on the ecosystem. Decreased vegetation reduces soil stabilization, resulting in increased erosion rates; sedimentation runoff into local watersheds clogs culverts, inhibits fish passage, and degrades water quality.

A few significant fires in the early 2000s, including the Copper Fire of 2002, denuded the vegetation within the San Francisquito Canyon watershed, significantly altering the landscape. In addition to the obvious impacts to upland habitats, the fire also severely impacted aquatic habitat in the watershed. This watershed is subject to high levels of sedimentation in its natural state, but after the Copper Fire, excessive amounts of sediment were eroded into San Francisquito Canyon Creek, damaging aquatic habitat and water quality throughout.

Restoring the watershed following the fire was a top priority, but not without significant challenges. It would require a vast network of experts across a variety of public and private organizations working together, balancing the needs of the forest and organisms with those of the various stakeholders.

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In 2016, Angeles National Forest partnered with the National Fish and Wildlife Foundation (NFWF) to restore the watersheds and ecosystems directly impacted by the Copper (2002), Ranch (2007), and Sayre (2008) fires. Through the Angeles National Forest—Wildfires Restoration Grant Program, various organizations were awarded grants to work on different aspects of watershed restoration. SWCA was honored to join the effort in partnership with Resource Institute, Inc. and Southwest Aquatic and Terrestrial Biology (SWAT), as part of a multi-phased project titled the San Francisquito Canyon Aquatic Barriers Restoration Program.

AQUATIC ORGANISM PASSAGES

Through this public-private partnership, the project partners are planning river restoration at three distinct sites along San Francisquito Canyon creek in the Angeles National Forest. The goal of the project is to restore Aquatic Organism Passage (AOP) – primarily for the California red-legged frog (CRLF; *Rana draytonii*) and unarmored threespine stickleback (UTS; *Gasterosteus aculeatus williamsoni*), both federal and state listed species – at five high priority barriers along the creek. An AOP barrier is an obstruction within a stream channel that prevents aquatic organisms from moving upstream and can limit the habitat to which they have access.

Phase 1 of the project involves developing permitting documents (including NEPA), stakeholder and community outreach, biological and cultural resource support, and engineered natural channel designs. Each of the three restoration project sites contain one or more Aquatic Organism Passage (AOP) barriers. The three sites in this project are as follows (listed from upstream to downstream):

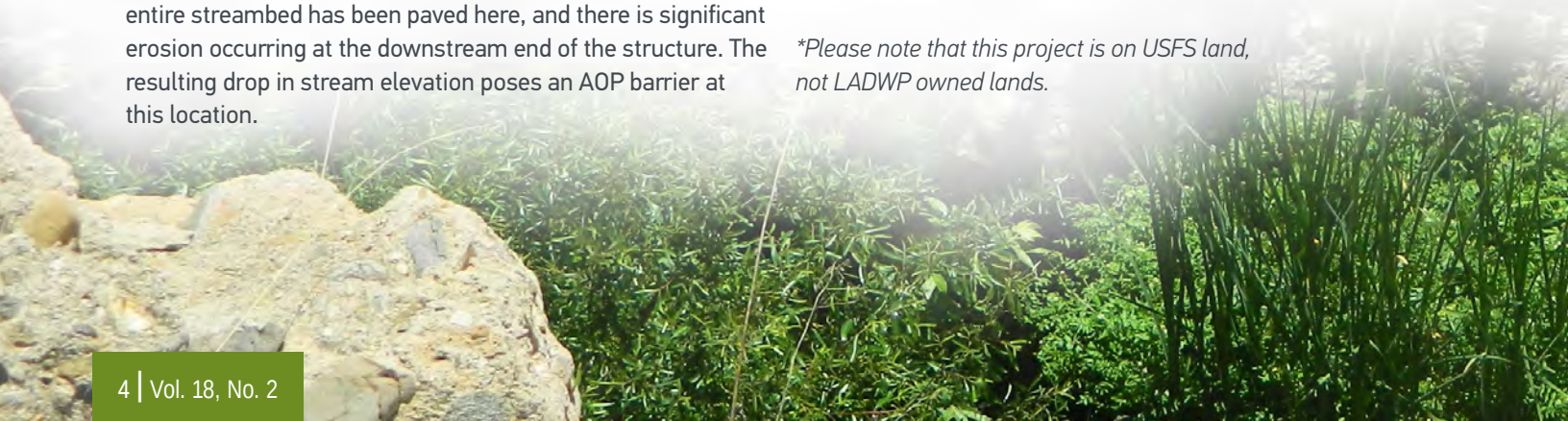
1. **Powerhouse 1 (PH1) Site:** There are three degraded road crossing culverts on Forest Service roads near Los Angeles Department of Water and Power's (LADWP's) Powerhouse 1 facility*. These culverts have been filled in with sediment or crushed and are no longer functioning as intended. As a result, aquatic organisms are unable to swim upstream past these culverts.
2. **Saint Francis Dam (SFD) Site:** This is the historic site where the Saint Francis Dam previously stood, until its disastrous collapse in 1928 (see page 5). Remnants of the dam within the creek are causing an AOP barrier at this location.
3. **Powerhouse 2 (PH2) Site:** This is an in-stream concrete overflow structure for LADWP's Powerhouse 2 facility. The entire streambed has been paved here, and there is significant erosion occurring at the downstream end of the structure. The resulting drop in stream elevation poses an AOP barrier at this location.

While all of these sites have been impacted by wildfires, the project partners are taking a holistic approach with the aim of addressing all resource issues affecting each site. At the PH1 site, the new culverts will be designed to handle increased sediment loads in the future, providing ecological resiliency for the watershed and securing safe access for Forest Service and LADWP staff that rely on the roads. Similarly, restoration at the SFD site will address excessive sedimentation from the Copper fire, but will also consider solutions to further protect the site for its historical and cultural value. The PH2 site will support recovery of fire-impacted species and habitats, but also must consider operational needs of LADWP's facilities, which are crucial for LA's water supply infrastructure.

California red-legged frog (CRLF; Rana draytonii)

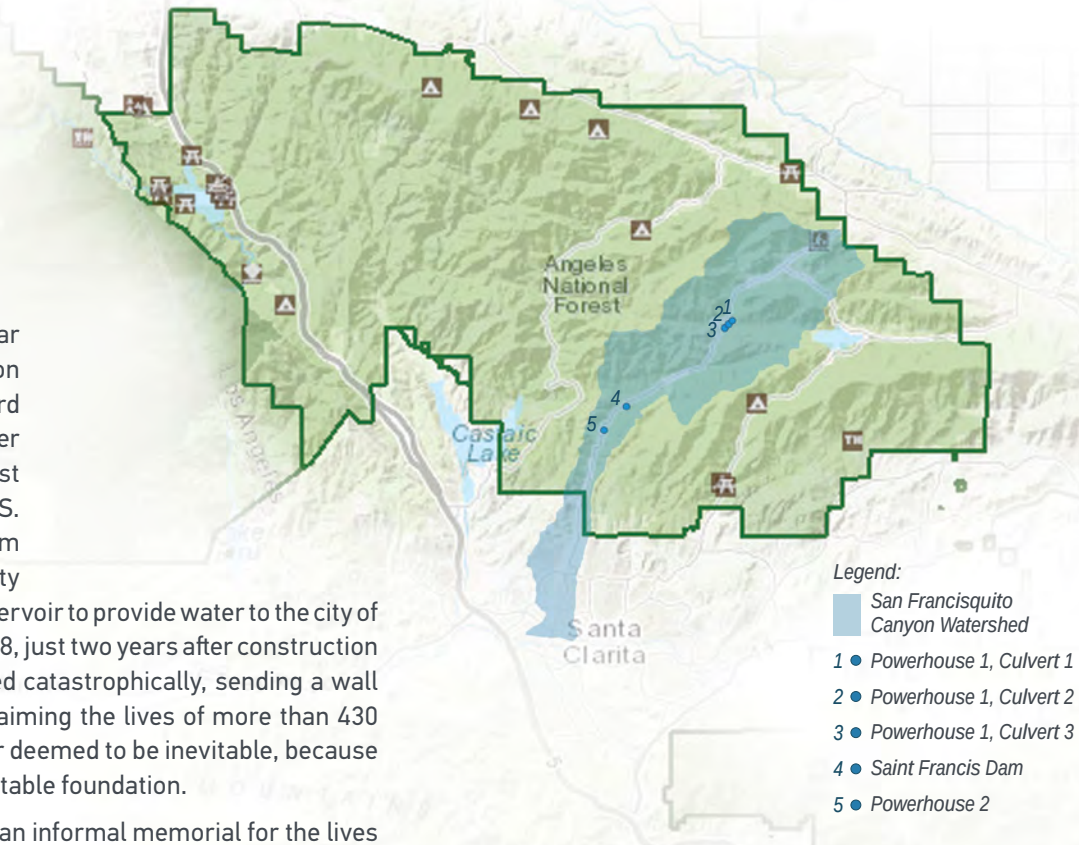
Unarmored threespine stickleback (UTS; Gasterosteus aculeatus williamsoni)

**Please note that this project is on USFS land, not LADWP owned lands.*



THE ST. FRANCIS DAM: A UNIQUE CHALLENGE

Even if you're not familiar with San Francisquito Canyon watershed, you may have heard of the St. Francis Dam disaster of 1928, one of the largest engineering failures in U.S. history. The St. Francis Dam was a curved concrete gravity dam, built to create a large reservoir to provide water to the city of Los Angeles. On March 12, 1928, just two years after construction was completed, the dam failed catastrophically, sending a wall of water down canyon and claiming the lives of more than 430 people. The collapse was later deemed to be inevitable, because the dam was built on an unsuitable foundation.



Today, the SFD site serves as an informal memorial for the lives lost in the dam disaster, and visitors come regularly to pay their respects. Remnants of the dam have been left behind in San Francisquito Canyon Creek, which provides sensitive cultural and historical context to visitors. However, those remnants are also contributing to an AOP barrier.

Downstream of the barrier, the creek supports the UTS, a small freshwater fish that is a state and federally listed endangered species and a State of California Fully Protected Species. The AOP barrier is blocking the UTS from accessing upstream habitat. This portion of the watershed also supports the federally threatened CRLF; sedimentation from the wildfires in conjunction with changing climate, and human activity in the area, has impacted and even destroyed much of the suitable habitat that previously existed in the watershed for this species. Due to the Fully Protected Species status of the UTS, which under most circumstances does not allow for any incidental impacts to the species, the approach to permitting the project must be considered very carefully. The project team is working closely with resource agencies to gain the necessary approvals and ensure the project protects and aids recovery of this important species.

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Simply put, the straightforward solution of removing all the rubble left behind by the dam is not an option, because:

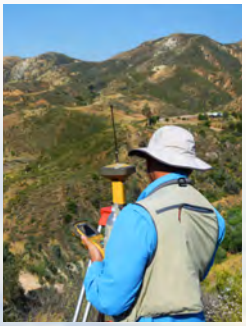
- Instream work at the site must be minimized in light of the Fully Protected Species status of the UTS that are known to exist there;
- the dam site is a significant historical resource;
- the community that views/uses the SFD site as a memorial do not want the dam remnants to be removed entirely, and the significance of the site from an historic preservation perspective would also make that infeasible;
- the remnants of the dam that are posing an AOP barrier have also created an instream pond that is providing high-quality habitat for the CRLF.

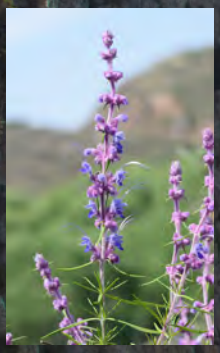
OUR PARTNERSHIP AND PROGRAM GOALS AND OBJECTIVES

Resource Institute, SWCA, and SWAT are tasked with designing a restoration project that:

1. Improves AOP to acceptable levels at all three project sites;
2. Protects existing instream pond habitat that was created by the barrier at the SFD site;
3. Preserves significant cultural resources at the dam site;
4. Allows an acceptable amount of access to the dam site for interpretation and memorialization, while limiting access that deteriorates the condition of the site further and renders it susceptible to vandalism;
5. Meets LADWP's needs for access to and maintenance of the PH1 and PH2 sites.

The project partners are working together along with the Angeles National Forest and NFWF to address the complex resource issues in this fire-affected watershed. With guidance from Resource Institute, SWCA and SWAT have mobilized field teams to conduct a geomorphic assessment and biological resource surveys.





The entire project team is collaborating on the best approach to restoration designs, public engagement, and environmental review. Currently, UTS experts at SWAT are engaged in scientific research within the watershed, including assessment of the health of the UTS subpopulation and physical habitat in the San Francisquito Canyon Creek relative to other remaining native subpopulations in the Santa Clara River watershed. By supporting and incorporating SWAT's research into the project, we hope to secure an MOU that would allow UTS restoration at these important sites. In the coming months, we will conduct cultural resource surveys, evaluate design alternatives, and begin preparing permits and other environmental documents.

We are also in the process of forming a Community Watershed Council (CWC) to get more public involvement with the project, and a Technical Advisory Committee (TAC) of agency personnel to ensure the resulting project will have agency support. Part of the CWC will also include volunteer events at the project site. Volunteer work is an important part of the project; it provides hands-on teamwork with the community, garners support for the project, and allows for early restoration to occur at the site. If you're interested in supporting the project as a volunteer, or providing project support by other means, please reach out to **Chelsea Murphy** at **cmurphy@swca.com** and **Chelsea Beakes** at **cbeakes@swca.com**.

THE ROAD TO RECOVERY

While it will likely take years before restoration at these sites is realized, we're proud of the collaboration that has already occurred amongst all of the project partners. Resource Institute's ability to develop funding streams for restoration projects and their national perspective on the most cutting-edge restoration techniques are the perfect complement to the technical expertise and local knowledge brought to the table by SWCA and SWAT. The Angeles National Forest and NFWF have supported these restoration efforts with a true spirit of collaboration and commitment to excellence. The partnerships being forged through this and other grant-funded projects in the Angeles National Forest are a great example of what can be accomplished when everyone works together with a singular goal of protecting and restoring our public lands. ■

> *"Resource Institute's partnership with SWCA and SWAT on this project will establish a model for future restoration efforts throughout the region where similar issues of species passage and protection must be addressed for successful project implementation. Professional staffs of each organization are highly trained and well prepared to integrate the multiple strategies needed to effectively collaborate with federal, state, local and private stakeholders to successfully accomplish this project."*
>
> **– Squeak Smith,**
> **Chairman of Resource Institute**

DOWN TIME:
FINDING TEAMWORK, LEADERSHIP LESSONS, AND CULTURAL TREASURES DEEP INSIDE UTAH'S GRAND GULCH

By Lisa Krussow

As the leader of SWCA's Salt Lake City field manager group, I'm always looking for ways to help develop our team and add to the experience for our cultural resources crew leaders. I work with the team to identify goals and initiatives that not only help us in our jobs with SWCA, but also our careers and life outside of work.

So last fall, when Ralph Burrillo, crew lead and assistant principal investigator, suggested an SWCA group backpacking trip in Grand Gulch, Utah, I jumped at the chance to use it as a team-building trip that could also benefit our clients.

Grand Gulch is an amazing canyon in southeast Utah that cuts through Cedar Mesa, an uninhabited 400-square-mile plateau. The canyon is currently considered part of the Grand Gulch Wilderness Study Area and is managed by the Bureau of Land Management (BLM). The Gulch is one of the most archaeologically rich areas in Utah, representing a full timeline of prehistoric use of the land from Archaic rock art to Basketmaker rock shelters and Pueblo III towers.

Prior to our trip, Ralph talked with the BLM and offered to document any vandalism that we encountered – a concern since visitation to the area has increased in recent years. He also informed them of our route, which involved descending through Polly's Canyon and taking Bullet Canyon out rather

than the far more popular Kane-Bullet route. Ralph and I were joined by program director Matt Edwards and field managers Erin Root (crew lead), Kate Hovanes (assistant project manager-architecture), and Michael Skidmore (assistant crew lead).

Here's a closer look at our trip and the lessons we learned:

DAY ONE

You can see the destination, but how do you get there?

Our legs are fresh and our energy is high as we briskly walk on the mesa top before descending into the canyon. Our backpacks represent aspects of our personalities, from the prepared and cautious folks with extra food, clothing, and more than enough safety gear; to the minimalists, with carefully rationed food and limits on extras (you can wear the same shirt for three days, right?). Already, team-building skills, such as analyzing individual strengths and knowledge that contribute to the group and assessing how people approach the problem of living out of a bag for three days, come into play.

Our first route plan didn't work, so we took the traditional descent into Polly's Canyon via the Government Trail. Not even halfway down we lost the trail. As a group, we decided to have Matt scout out a route to the west as we tried to piece together the trail. The trail was evidently one bench below.

This offered a handy analogy for a common problem with management and planning: you can see the end product, but how do you get there? Michael spotted a connecting route to the east and we followed him down. Matt made it down his own way, showing that there are multiple ways to approach a problem. We all agreed on our campsite for the night, set up camp, and then went to check out an amazing cultural site.

DAY TWO

Know when to slow down and prioritize

The second day tested our group, both physically and mentally. Not everyone pumped water from the stagnant hole we'd found near our campsite the night before, and priorities were laid out from the beginning with several members opting for water-for-coffee over water-for-food.

The lack of water drove all our decisions for the first half of the day. As the group revived with some food, the heat rose to 85 degrees, which was higher than any of us were used to in March. It was more than halfway through the day before we found a much-desired pool of water up a side canyon, which added nearly 14 miles to our day. The trail proved to be a sand slog, more evidence that this is the driest winter that Cedar Mesa has seen in recent years.

Lucky for us, the hardship brought out the good in the group. Evidence of team building kept popping up throughout the day with people offering water to those that had less, sharing food, helping one another across logs, and warning each other when the ground was unstable or when there were hanging branches.

DAY THREE

Working together lightens the burden

The final day started with an easy walk to the junction of Grand Gulch and Bullet Canyon. The trail was lightly packed from rain that had fallen the night before, and the route was relatively flat. We dropped our packs, took our water supplies, and ventured towards the Green Mask site and spring. Compared to the route the day before, we were all happily trotting along feeling light, and full of energy and camaraderie. The site proved, again, to be amazing and something you will never see outside of Cedar Mesa, and we lingered until we

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realized we really needed to start our ascent. The trail continued to be much easier walking than the day before and we had time to play around the Jailhouse and Perfect Kiva sites, testing our skills bouldering up the route.

Ralph and Matt kept a faster pace up the trail, so we decided to have them split and complete the car shuttle, while the rest of us took it a little slower. As a smaller group, we tracked footprints and used trail cairns. I had some familiarity with the area and felt like we were on the right track by using landmarks. We spotted our shuttle vehicle still parked, so it turned out that we beat our speedy leaders who had marched right past the exit trail. After peeling off our boots, drinking some water, and sharing some food, we devised a safety plan in case they were lost. Luckily, we didn't have to put our plan into action because after a few more minutes Ralph and Matt appeared.

All's Well That Ends Well

Although this area has seen a huge increase in visitation since the 2016 national monument proclamation, we did not observe an increase in vandalism. Hopefully other visitors have been touched by the remarkable archaeology and are leaving it for future travelers.

For us, the trip provided an opportunity to experience a type of team-building that is difficult to achieve in the office. The things we learned were not all tangible, but we now have a common thread because of this experience in the Utah desert, seeing archaeology that would blow anyone's mind, and being away from civilization's distractions for a few days.

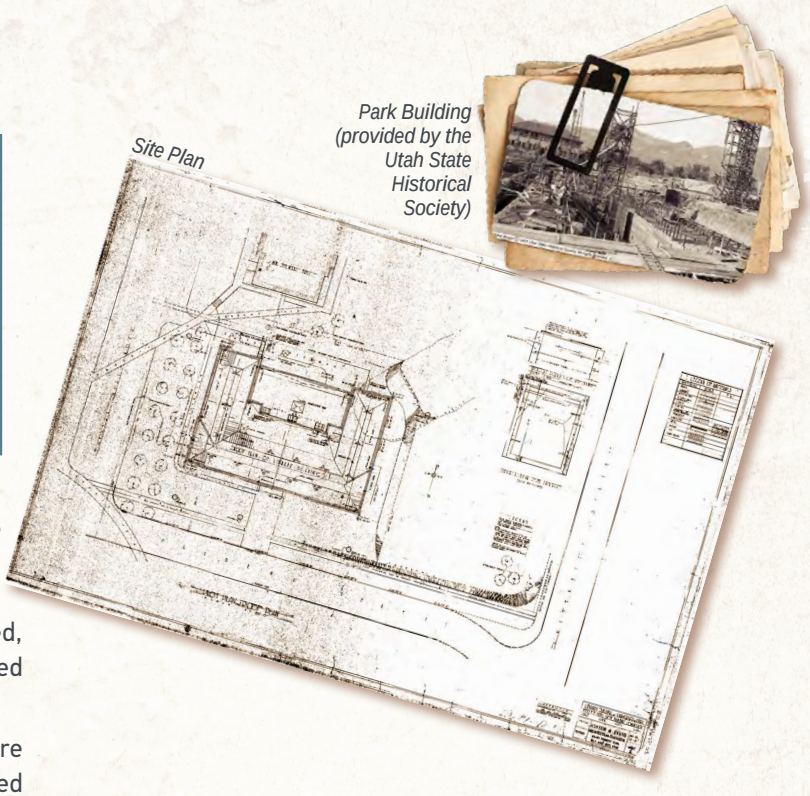
I'm already seeing the benefits play out within the walls of the office too, as we navigate projects and client problems and find new ways to work together more efficiently than ever before.

For more information about SWCA's cultural resources services, contact **Lisa Krussow** at **LKrussow@swca.com**. ■

BARE BONES:

HOW AN UNSETTLING DISCOVERY ON A CONSTRUCTION SITE LED TO SCIENTIFIC COLLABORATION

By Alexis Kuhbander



In April 2016, the University of Utah began renovating the George Thomas building, one of eight historic structures that sits in the campus' u-shaped Presidents Circle, to become the Crocker Science Center. Soon after construction started, however, the discovery of human skeletal remains quickly halted the project.

An analysis of the remains by the state determined that they were anatomical specimen, cadaver bones that could be associated with the University's first medical school. The archaeological excavation, led by SWCA, uncovered other skeletal remains, bone fragments, and artifacts dating back to the early 1900s.

Presidents Circle circa 1929 (provided by the University of Utah)

Through extensive historic research, archaeological investigation, and analysis of the remains, SWCA worked closely with university and state officials to determine the story of the bones and why they were initially disposed. The prevailing theory was that the cadavers had been donated from a local prison or hospital for medical study.

Kelly Beck, Cultural Resources Principal Investigator, and Kate Hovanes, Historian, from SWCA's Salt Lake City office were both a part of uncovering the mystery behind the human skeletal remains. We asked them to talk about their experiences on the project.

The Wire: How did SWCA get involved in this project?

Beck: We have a good relationship with the University of Utah and regularly help them with projects that involve architectural history and historic archaeology, so it made sense that they contacted us. We have also been helping to facilitate the University's consultation requirements with the Utah State Historic Preservation Officer, as well as other state and federal agencies, historic preservation interest groups, and the interested public.

Wire: What made this project stand out from others you've worked on?

Beck: First, the context of the human skeletal remains discovery that prompted the project to begin. It seems too much like a fictional movie plot to find human bones underneath the foundation of a historic building. Second, is the way that researchers from several disciplines needed to come together to tell the most complete and most compelling story possible about those bones.

Wire: Is it unusual to come into a project after construction has already started? How did you adapt?

Beck: It's not completely uncommon for SWCA to get involved with a project when an unexpected discovery is made during construction. What made this discovery unique was its context. Here we had the discovery of human skeletal remains with associated historic artifacts underneath the concrete slab foundation of a historic building.

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Wire: Beyond the bones, what other artifacts and materials were discovered?

Beck: The artifact assemblage that we recovered contained a lot of items that you'd commonly think of finding in a scientist's laboratory. There were things like burettes, glass test tubes, medicine bottles, and ceramic crucibles that are used in laboratories to heat chemical compounds to very high temperatures. However, there were also several artifacts that you're more likely find in your great grandmother's kitchen cabinets—domestic artifacts like ceramic teacup fragments, broken pieces of dinner plates, even a few buttons from clothing.

Hovanes: Finding the scientific paraphernalia—beakers, flasks, crucibles, and so forth—is what helped us connect the cadavers to the medical school.

Wire: A wealth of history was reviewed to determine the story of the remains. What fascinated you the most?

Beck: This project gave us an opportunity to look at how students were trained to be medical professionals a century ago and compare that with how medical professionals are trained today. I've always been interested in looking at what people do and why they do it that way. I suppose that's the main reason I'm an anthropologist!

Hovanes: My favorite area was research at the state prison. Understandably, the historic prison records aren't something that is commonly consulted by historians; they are all hard-copy only and require considerable coordination with prison officials to grant access. Getting to look through them was like discovering a treasure that few, if any, historians have seen before. Seeing the photographs of inmates from the turn of the century and reading about their lives was fascinating and poignant.

Wire: What surprised you most during the project?

Beck: The biggest surprise of the project for me was the discovery itself. How curious that we'd find human skeletal remains underneath the concrete slab foundation of a historic building?!

Hovanes: The different avenues of research that the project opened! We ended up looking at everything from historic photographs of Presidents Circle; building plans; histories of the medical school; historic newspapers; prison records of inmates; and physical evidence, such as artifacts. We also researched different aspects of the histories of the cadavers and how they may have come to be in the ravine. We looked at everything from the history of the medical school and local hospitals, to the history of trash disposal in the United States, and the historic use of cadavers in medical schools. I'd say this is the most diverse historic research I've ever done.

Wire: What was your favorite part of working on this project? Least favorite?

Beck: For me, the best part of working on this project was the interdisciplinary collaboration. Individually, none of us could have put together anything like the evidence-based story that we have been able to develop from our collective research.

Hovanes: The varied research was my favorite part of this project, because I learned so much. My least favorite was the fact that ultimately, we'll never really know what truly happened. We can make educated guesses and try to understand the factors that led to there being cadavers buried under a building, but we'll never be able to piece together the exact events that led to it. As a historian, this is the sort of question that I'll always wonder about.

Medical building circa 1945
(provided by the University of Utah)

Gulch excavated

Artifacts

North wall excavated

Wire: Can you elaborate on the importance of collaboration during the project?

Beck: Most often, projects involve only one or maybe two of the historic preservation disciplines. This project was exciting because, to tell a complete story about the people whose bones were uncovered, we needed to get pieces from archaeology, history, and architectural history. In addition, this project added the involvement of Utah's forensic anthropologist, who analyzed the bones herself. This really was a collaborative effort between many scientists.

Hovanes: Doing the research and getting the answers the University was looking for required working with a diverse team. Doreena, the state forensic anthropologist, examined the bodies. Stephanie Lechert, a Historical Archaeologist in SWCA's Salt Lake City office, covered the archaeology side of things with Kelly, and I did the historic research with Brooke Adams, from the University, while doing research and recording the podcast. Without each of those individuals, our work would have been incomplete.

Wire: Once all the artifacts were recovered and the records were studied, what was the final determination?

Beck: All available lines of evidence suggest that the human skeletal remains found underneath the foundation slab of the George Thomas Building were likely associated with the University of Utah's School of Medicine and were used by the school as anatomical specimens sometime between 1905 and 1920.

I think the more interesting finding though is one of cultural change and continuity. I think it's striking that the cuts found on the century-old bones match those expected from a cadaver dissected in an anatomy lab today. The in-class experiences of medical students learning the human body hasn't changed a whole lot. What has changed dramatically is what happens to those remains once they can no longer be used in the classroom.

Wire: What happened to the remains after the project was complete?

Beck: In keeping with the remains as a teaching tool, the bones recovered during this project have been donated to the Department of Anthropology at the University of Utah to be used as part of their human osteology teaching collection.

Wire: What can future clients learn from a project like this? Is there a takeaway message?

Hovanes: For future clients, it is useful to note that this is history, research, and public engagement done right. People would likely see historic human remains show up at a construction site and think, "Ugh, we have to keep this hush-hush." With our help, the University of Utah was able to give some meaning to the remains and their improper disposal back in the early twentieth century. It's a chance to educate the public, to do some solid academic work, and to right a historic wrong. Similar situations don't have to be PR nightmares—they can be an opportunity to serve and educate the community.

Beck: Environmental consulting is what SWCA does. Our team of highly regarded cultural resources and natural resources scientists make us uniquely suited to do such interdisciplinary, collaborative research.

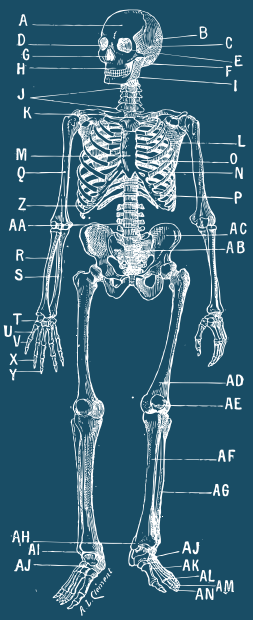
For more information on the Crocker Discovery: contact **Kelly Beck** at **kbeck@swca.com** or **Kate Hovanes** at **kaitlin.hovanes@swca.com**. ■

To see a bonus video on this story, visit www.swca.com.

WANT TO HEAR MORE OF THIS STORY?

In early 2018, the University of Utah's Marketing & Communications department launched a seven-part podcast series called "Secrets of the Campus Cadavers." The series tells the story of the bones and the investigation into their origins, featuring both Kelly Beck and Kate Hovanes. Find the podcast on iTunes, Stitcher, and the RSS feed.

https://unews.utah.edu/cadavers/



A NEW CHORUS:
HOW THE RISE IN TRIBAL VOICES BENEFITS PEOPLE AND PROJECTS

By Scott Phillips and Suzanne Griset

Navigating the complex historical, cultural, legal, and policy framework that informs projects on Native American tribal lands has long been a challenge. Historically, the U.S. federal government assumed the responsibility of tribal consultation, from the earliest days of treaty and trust relations. However, in recent years, tribal interests have intensified and gained broader recognition as tribal voices have grown stronger and are increasingly being heard.

As a result, tribal governments and private companies are finding it advantageous to reach out to each other directly. More and more, those in the private sector are engaging with the representatives of tribal governments as early as possible on projects that use land or environmental resources. This follows 50 years of renewed federal recognition of self-determination for tribal nations and the establishment of federal regulations for environmental impact review.

Contrary to what some may think – this early engagement doesn't weigh projects down with extra steps. Instead, it leads to a better path for resolution of concerns, more efficient approvals, and fewer surprises once the project is underway.

Tribal governments have always maintained their interest in the lands and resources important to the people they represent, their lives, spirits, and identity. Self-determination means that tribal governments may express these values for themselves and work directly with others on these concerns. Tribal governments now tend to have strong internal programs, staff expertise, and formal processes to participate directly in projects, permit review, and consultation where their interests lie.

The private sector has an interest in being proactive and working directly with tribes to achieve best project results in areas of tribal concern. Best practices for private sector initiatives working directly with tribes include:

- Knowing tribal concerns in the areas where a company works, and having company representatives who know who to contact within the tribal governments.
- Involving appropriate tribal representatives for input in all stages of projects — from early plans for siting to design and final implementation.
- Engaging tribes at an earlier stage than permitting agencies are often able to initiate; this achieves better and smoother coordination throughout a project life cycle.
- Directly involving tribal representatives on larger project areas than may be required by federal oversight; this leads to better resolution of tribal concerns in the federal permitting process.
- Demonstrating positive and responsible engagement of Native American stakeholder communities.

For more information on how we can help navigate tribal involvement on projects of any size, contact:
Dr. Suzanne Griset (**sgriset@swca.com**)
or **Scott Phillips** (**sphillips@swca.com**). ■

> *...early engagement doesn't weigh projects down with extra steps. Instead, it leads to a better path for* ***resolution of concerns, more efficient approvals, and*** *fewer surprises once the project is underway.*

NEWS BRIEFS

NEW HIRES & PROMOTIONS

Shane Stowell
Chief People Officer

Dr. Shane Stowell has been named SWCA's new Chief People Officer (CPO). The CPO position is taking the place of the former title, VP of Human Resources. Shane has worked with SWCA's senior leaders for the past five years, including the last year as a member of SWCA's Board of Directors. His experience includes being a partner at RHR International, a 70-year firm that combines business acumen and psychological perspective to help develop leaders and teams in businesses and non-profits of all sizes.

Chelsea Murphy
Director of Federal Business Line

Chelsea Murphy has been promoted to SWCA's Business Development Resources Team, as Director for the Federal Business Line. Chelsea has served as Natural Resources Project Manager in Pasadena, California and is transitioning to a broader role in the Rocky Mountain region and nationwide.

David Steed
Business Development Resources Director / Mining Business Line

David Steed has been named Business Development Resources Director, where he will continue to oversee the company's nationwide mining business line and will offer additional support to other business line opportunities. In addition to his expanded role, David will continue to support client and project management needs. David joined SWCA in 2013 in the company's Salt Lake City office.

Scott Urwick
Director of Oil and Gas Business Line

Scott Urwick has been named Director of SWCA's oil & gas business line. Since joining SWCA in 2016 as SWCA's Federal Energy Regulatory Commission (FERC) director, he has been involved in growing the FERC natural gas pipeline business, including business development, and recruiting of additional FERC-experienced project managers and other staff.

Reid Persing

Reid has been promoted to Natural Resources Director for SWCA's Salt Lake City office. Reid joined SWCA in 2015 and has led interdisciplinary teams and managed high-profile energy, mining, transportation, infrastructure permitting, and public lands planning efforts in Utah and surrounding states.

Paul Burnett has been named Cultural Resources Director in our Denver office. Paul has been with SWCA since 2004 and has played an important role in the cultural resources programs in Colorado and Wyoming, leading survey and excavation projects, developing project strategy approach, managing complex projects, and working closely with clients and agencies.

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NEWS BRIEFS (CONTINUED FROM PAGE 15)

LARRY S. SEMO AWARD WINNERS

Congratulations to **John Dietler**, Southern California Principal in Pasadena, **Paul Sunby**, Senior Project Manager in Austin, and **Scott Phillips**, Senior Principal Investigator in Denver. They are the latest winners of SWCA's Larry S. Semo Award. The quarterly Semo Award rewards individuals for demonstrating passion, creativity, and scientific excellence. The award is in honor of Larry Semo, who began working as a biologist for SWCA in Austin in 1993 and transferred to Denver in 1999. A respected and widely published ornithologist and all-around naturalist, Larry had an insatiable desire to learn and a great love for the outdoors until his untimely passing in 2011.

SPREADING THE SCIENCE

In April of 2018, SWCA's Gives Back program launched a new initiative called "Spreading The Science." The goal of the Spreading The Science program is to conduct and cultivate environmental educational efforts for both children and adults in our communities. Our experts volunteer their time and share their knowledge at schools, environmental education events, outdoors festivals, STEM events, and much more.

Since the program's launch, employees have participated in over 30 Spreading The Science events, raised over $6,600, and given 782 volunteer hours.

We also partner with clients to support charitable events. Interested in helping us Spread The Science? Contact Joseph J. Fluder at jfluder@swca.com

SWCA Gives Back