

boatman's quarterly review

ELLEN TIBBETTS

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Prez Blurb • Farewells • Andy Hall • Guide Profile • The Journey • Stanton's Cave
Point Positive • Save the Dates • Glen Canyon Dam and the Colorado River
Book Reviews • Eye of Odin • Cooler Research • Whale News

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...is published more or less quarterly
by and for GRAND CANYON RIVER GUIDES.

GRAND CANYON RIVER GUIDES
is a nonprofit organization dedicated to

Protecting Grand Canyon
Setting the highest standards for the river profession
Celebrating the unique spirit of the river community
Providing the best possible river experience

General Meetings are held each Spring and Fall. Our Board of Directors Meetings are generally held the first Wednesday of each month. All innocent bystanders are urged to attend. Call for details.

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Written submissions should be less than 1500 words and, if possible, be sent on a CD or emailed to GCRG. Microsoft Word files are best but we can translate most programs. Include postpaid return envelope if you want your disk or submission returned.

Deadlines for submissions are the 1ST of February, May, August and November. Thanks!
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Prez Blurb

GREETINGS FROM SALMON IDAHO where I'm finishing up my Middle Fork tour. It's the time of the season where we all feel pretty well worked and probably need a vacation before the "dog days of August." I had a guest say recently, "You guides just have a paid vacation." I just pointed out, "Yeah, fourteen hours a day, every day." Anyway, onward...

By now the incident at National Canyon has flowed around the community, of a guest thinking he was left behind and making his way down-river and eventually losing his life by drowning. This incident points to the fact it is impossible to protect guests totally from their own misguided actions, however well-meaning they may seem to that individual. The crew had over 200 years of experience combined plus a group of retired fire fighters and lifeguards as guests. As they are my colleagues, I know that their attention to safety is of the highest order. Yet when panic sets in, thinking and logic ceases, and the result can be tragic. We may try, but we cannot protect everyone from themselves.

Onward—in past writings I have discussed beach erosion and the possibility of tapping into sediments to rebuild them. The sand and sediments are there but are trapped behind the giant monolith of Glen Canyon Dam. How do we tap into them? To discuss this, an essay on dam building is necessary. First, a little history:

The U.S. Bureau of Reclamation was established in 1902 principally to build dams on our western rivers. The Imperial Valley south of Palm Springs, California is one of the hottest, driest places on earth, but the soil is rich, for in the past the Colorado River flowed through it depositing its sediments. Big agriculturists started farming it around the turn of the century (1890–1900). The Colorado flows east of the valley and is higher in elevation, the Imperial Valley being below sea level thus irrigation ditches were dug to water the rich soils. All went well until the spring of 1905 when the mighty Colorado tore out the head gates and the entire river was diverted into the Valley and formed the Salton Sea. For two years attempts were made to re-divert the Colorado back into its original channel to no avail. The real danger was eventually that the Salton Sea would rise above the land barrier to the Sea of Cortez and thus reclaim the Valley to the sea, meaning the entire loss of the Valley to agriculture. Finally the Colorado was diverted back to its original

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Cover photo: Dugald Bremner, 1988, NAU.PH.2018.34.1.144.261
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channel. The Southern Pacific built a track and literally drove filled box cars into the gap where the old head gates were. The need to control the Colorado was now graphically apparent. Interestingly, when a high dam was first proposed by Secretary Larue (or La Roux) his choice was Glen Canyon but was overruled because there was no nearby infrastructure or market for the sale of power, whereas Boulder Canyon had the Southern Pacific thru Las Vegas and Los Angeles as a market. That site eventually became Black Canyon, as it would increase the size of the reservoir. Lucky for us and the Grand Canyon because a dam in Boulder Canyon would have inundated even more of the Grand Canyon.

So, how Glen Canyon Dam (and dams in general) are built: the first step is to divert the river out of the channel. Diversion tunnels must be dug through the sandstone around the dam site to deliver the river water back to the channel below. Dikes were built in front of the diversion tunnel entryways thus preventing the river from inundating the sites. The tunneling was started in the spring of 1957 on each side of the river. Each tunnel was 41 feet in diameter and half a mile long—22,000 tons of rock being removed a day. Gates were installed at the upriver portals then a cofferdam was constructed—a rock earthen structure blocking the river and forcing it to flow through the diversion tunnels after the protective dikes were removed. In February of 1959, after 22 months of removing rock, the Colorado River was diverted out of its channel and the dam site exposed to begin actual construction. Four years later in March of 1963, the gates at the head of the diversion tubes were lowered and Lake Powell started to fill. The heavy load of silt and sand settled behind the cofferdam. The diversion tubes were then filled with 150 tons of concrete to ensure no leakage occurred. It is a shame that the engineers of the project weren't as prescient as the Chinese engineers with Three Gorges Dam on the Yangtze where they put in sluice gates so sand and silt could be drained from behind the dam thus preventing the reservoir from filling with silt.

So here lies a possible source for sand and sediments to rebuild beaches in the Grand Canyon—sitting right behind the cofferdam, adjacent to the diversion tubes that would allow the sediments to flow around the dam. Most of the infrastructure is already in place. Only one diversion tube needs to have the concrete removed and a proper functioning gate constructed to allow sand and silt to flow around the dam. Sound far-fetched? Well, yeah. It will take a lot of convincing politicians and bureaucrats to

entertain the notion. Fortunately, most of the infrastructure is already in place—it just needs modification. It's a Civil Engineering project, no new technology is needed. Also a huge selling point is that it will extend indefinitely the life of Lake Powell as a reservoir. That should please a lot of the populace and politicians. A lot of questions will arise: is there

enough sand and silt there to tap into? Cost? How to do it? What clearly is needed to start this process is to recommend funding a feasibility study. That can't hurt can it? Not too much money to find something out that could possibly be answer to a problem that is only getting worse.

At the spring GTS, Jack Schmidt handed us a pearl when he said (paraphrased), "Speak clearly and define what you want the Grand Canyon to look like in the future." We as a guide's organization have already affected the Grand Canyon in a positive way with the Grand Canyon Protection Act. There is more work to do and we can affect the Grand Canyon's future in a positive way. We've got to pull together.

My tenure as President of GCRG is about over. It has been some work but a pleasure to work with all these interesting and positive people. I feel richer for the experience. My friend, Margeaux Bestard, will be taking the reins in September and guiding us thru the next year and I'm sure she will be fantastic.

All the best to everyone out there, may your runs be smooth and exciting.

Doc Nicholson



Outgoing and incoming GCRG presidents, Doc and Margeaux.

Farewells

JOAN NEVILLS STAVELEY—OCTOBER 7, 1936 – APRIL 9, 2019

JOAN GREW UP on the banks of the San Juan River in Mexican Hat, Utah, with her parents Norm and Doris Nevills, her sister, Sandy, and their dogs. Norm and Doris were adventurous, daring, and unafraid, and raised their girls to be so. Thunderstorms, flash floods, and primitive road conditions were a normal part of life, and Joan reveled in them.

Early on, Joan was her dad's staunch "soldier." She was convinced his boats could not be built without her help. In the isolated pre-World War II world, Norm was struggling to support his family and was also devoted to opening Southern Utah's beauty to others by running river trips on the San Juan and in Glen Canyon.

Nothing missed Joan's scrutiny. As a preschool toddler, she captured a bewildered and fortunately benign rattlesnake. The bribe from her mom, Doris, caused her to reluctantly give up her trophy. Graham crackers were hard to come by!

Mexican Hat was an exciting world of huge wind storms and dust devils which routinely tore the roofs off Daddy's shop and our house. Joan was the search and rescue crew, chasing down roof materials. She indeed was dad's soldier and workhorse. Joan was taught to read by age four by the simple expedient her dad told her she could. She also learned to drive his work rig at age eight—an accomplishment she was enormously proud of and which caused me huge jealousy. She "co-piloted" our plane, sturdily holding the stick with Daddy. The desert was Joan's playground with her constant companions, our dogs. The river was

however, off limits. Many spankings reinforced this, yet explorations sporadically continued.

This idyllic world ended on September 19, 1949 when Mom and Daddy died in the crash of our plane. Joan's next years were spent at Wasatch Academy in Mt. Pleasant, Utah, and with the Rigg family in Grand Junction, Colorado. I was sent to live with mom's great aunt in Sacramento, California.

At age 18, Joan married Gaylord Staveley. Together they owned and operated Mexican Hat Expeditions, now Canyoneers. Joan was "the gofer"—she did everything, bought trip supplies, developed menus, examined air mattresses to be sure they didn't deflate (they always did), booked passengers, wrote letters, fed and provided floor space for perennially hungry young boatman. This in addition to raising two great kids, Cameron Lee and Scott Norman. She always forged her own path, first earning her private plane's license and later becoming a certified jet boat pilot on Lake Powell.

Joan moved to Page following her divorce from Gaylord to become the Executive Director of the John Wesley Powell Museum and Page Lake Powell Chamber of Commerce. With her typical zest and enthusiasm, she loved Page and they loved her back! At one time, she was vice mayor. She tirelessly promoted Lake Powell and Northern Arizona, representing them in many trade shows all over the Southwest. She excelled as the ambassador for the Four Corners and Northern Arizona, an area she so loved. Her tenure

on two Federal commissions further advanced the area and her expertise.

In 2007, she moved back to Flagstaff following



Joan Nevills Staveley and Sandy Nevills Reiff

a serious fall. Of course, her long-time friends and companions moved too—her dogs. They also welcomed one and all including friends in the river community and new neighbors. During this time, she diligently kept up with her journals which are filled with fascinating examples of how it was in the early years of her life. She also loved developing friendships with her grandchildren and great-grandchildren. Also with her niece Shannon and her two daughters, Kate and Cassidy, as well as Gregory and Norman Reiff, her nephews. She was delighted with a late-in-life grandson, Sam Nevills Staveley with whom she shared endless esoteric conversations and much laughter.

Joanie died this last April 9, 2019, the birth date of her father, born many years before. She made everyone

feel special and was a deep support to each of us individually. She was deeply loved and cherished by her family. Her life was a vibrant tapestry of historic and current events. Joan was proud of being a member of a pioneer river running family and even more so that her son and nephew have continued that tradition.

This October, following the river season, a celebration of Joan's life will be held in Flagstaff, time and date to be announced later. Further plans include a grave-side commemorative at the family plot in Mexican Hat, Utah will also be announced later.

See you down river, Joanie Elizabeth...

Sandy Jane

BILL GEORGE—DECEMBER 1, 1938 – MARCH 21, 2019

“If you are going to tell me it can't be done, please show me the courtesy of staying out of my way while I do it.”

—BILL GEORGE

THese words defined BG better than any others. He was as persistent and unyielding as he was generous, inclusive, adventurous, roguish, and benevolent. His wife, Shirley, lovingly referred to him as “General Bullmoose.” Blessed with the gift of gab, his stories were legendary and he would make friends wherever he went; it wasn't unusual to hear “Bill George! Is that you?” shouted across a room. No one in the family was ever surprised to hear it, even at a rural airport in Antigua at 2:00 A.M.—ironic, considering he was born and raised in Utah and never lived outside its borders. He collected friends the way others might collect rare coins and he drew people to him like a magnet. Strangers became friends and friends became family. He had a massive presence, both in stature and vigor; wherever he was, he filled the room, even alongside the river beneath the stars.

He married the love of his life, Shirley, in 1960 and by 1963 they had begun their family. They had a wild romance together for 58 years! He was a multi-faceted man of many talents and could fix anything! He was an English major at BYU, played Freshman football on a scholarship, ran track and field, and taught fly fishing at the University of Utah.

Prior to Bill owning Western River Expeditions, he had been an original organizer of the “American Sportsman's Club.” His love for boating grew from his passion for hunting and fishing in Desolation/Gray Canyon on the Green River. He would spend days on end rafting and hunting for deer along its banks and



Bill George rowing a snout.

convinced others to join him. He befriended Don and Jeanette Wilcox and that friendship would spark countless stories he readily told around the campfire. His stories peaked the curiosity of many and by 1970 he started Bill George's Green River Expeditions and ran it for the next six years with Shirley driving shuttle — four kids in tow. At night he would play guitar and sing songs, preferring the silly ones.

In 1977, he and a partner, Lynn Keller, purchased Western River Expeditions' (WRE) Moab operation from Jack Currey with Rights of First Refusal for the remainder of WRE. By 1978, they added Larry Lake as a partner and purchased Western's Grand Canyon operation and a new "family" was born: the Western River Family. Those adventures and stories could literally fill volumes. His remarkable dedication to family, both immediate and "adopted" was unparalleled. He always made you feel like family, welcome in his home and in his heart. He had a profound and far reaching impact on those who knew him.

Anywhere you agreed to go with him, adventure awaited. You could literally end up *anywhere* doing *anything* and it was wise to always keep your ammo can packed and at the ready...just in case. It wasn't uncommon to agree to go run an errand with him and then find yourself in a plane headed for Page or Fredonia for the afternoon...*never* a dull moment. One former manager and friend described him best... "Bill is the most accessible, approachable, and lovable 'larger than life' person there ever was...I know that seems like an exaggeration, but I assure you it is not. No matter how hectic or stressful, the day or the situation, if Bill was around, I could always count on a big, all encompassing father's hug, a joke (or seven), and a witty chat that always made me feel at peace and that nothing, not even his own business, was worth losing my sanity over."

Bill was fiercely loyal and his friendship with Georgie White was no exception. He visited her often and admired her greatly. She trusted him to sell her company to when she was dying and he presided over her funeral. Tony Heaton approached him when he was first considering Bar 10 Ranch as a destination for weary rafters and was looking for support from the rafting companies; Bill did not hesitate and soon WRE was sending its passengers via mule to meet the Heaton's at the rim.

Bill was a legend in his own time and will be greatly missed. Tennyson wrote, "I am a part of all that I have met" and I am a far better person having met you BG (dad).

Tiffany George



"Satori" by Erica Fareio

JESSICA JEANNE YOULE passed away in the summer of 2018. Born in Illinois with an adventurous spirit, Jessica spent her summers attending horseback riding camps in places like Jackson Hole, and spent her junior year of high school as an exchange student in Australia. She formed many lifelong friendships while getting her bachelor's and master's degrees, graduating with honors.

Shortly thereafter, Jessica's father took her out West for a rafting trip. This adventure sparked what would be a lifelong appreciation of and a deep loyalty to the Colorado River through Grand Canyon.

She was one of the first women to become certified as a Grand Canyon river guide (complete with a guide license in which she is picking her nose) where she rowed large snout rigs. As both a guide and a manager she became embedded in the river community, fostering lasting relationships with iconic river characters of the day like Louise Teal, David Winn, Phil Town, David Edwards, Moley and many others.

She went on to become one of the first female owners of a commercial rafting company serving a decade with Arizona Raft Adventures. As a leader in the river community, she prioritized scouting trips, conservative lines, and was one of the only owners to shut down operations in the historic flood of 1983, ensuring both her customers and employees would stay safe.

After giving birth to her first child, Alexandra, she spent the next decade in Flagstaff, planting the seeds for her daughter to live a life of adventure and strength. The next step in her journey was law; she graduated cum laude with a Juris Doctorate from Arizona State University in 1983. Her prestigious law career began at Lewis and Roca, where she became a partner and again forged strong friendships that she would nurture throughout her life. True to the

uniqueness of her spirit, she practiced law at the same time she practiced reading astrology, tarot cards, and, in her words, more “hippy-trippy stuff.”

Jessica became a mother again in 1985 with Graham and 1987 with Andrew and imbued an appreciation of confident women and a love of the outdoors into her “boyos”. Jessica moved on to Salt River Project in 1993,



where she shifted her focus to environmental law and served as Senior Principal Counsel for Regulatory Policy. Her career reached a pinnacle with an appointment to Senior Director for Energy Policy for the State of Arizona under Governor Janet Napolitano. Her time on the river served as an inspiration for her

impactful career as an environmental lawyer.

After retiring from law, she took pleasure in the later period of her life by remaining close with her wonderful friends, maintaining her position as matriarch of her family, and getting to know her grandchildren, Lyra and Tiana. She retired to Cottonwood, Arizona, and filled her days with gardening, gourmet cooking, reading voraciously, and serving as a board member for Habitat for Humanity.

Her boating days always stayed with her, from spray painting ammo cans in the driveway of her Phoenix home, to being laid to rest in her Texas. Many of her friends experienced her enduring love for the river by joining her on trips. She

also raised her children to love boating. They still raft together, and Alexandra has followed in her mother's footsteps as an owner of AZRA and an advocate for the protection of Grand Canyon.

Jessica is remembered for her tenacious spirit, arresting intelligence, stalwart devotion, loyalty to her friends, and unyielding love for her three children.

Graham Cawley

The Journey

WE ARE ALL ON THIS SPACESHIP we call planet Earth, together, making our own journey through time and space, through the ever changing and evolving world. I'm nearly certain that one of the best places on planet Earth, to get your skull-bound brain to contemplate the *big* questions, is Grand Canyon. How the heck did we get here anyway? Where did I come from? What does it all mean? You mean to tell me that rock is almost two billion years old?! These elements were formed inside of stars?! Am I star dust too?! Will humans even be in the fossil record? Will anyone even know that I ever existed? Where is it all going? Why is there so much confusion, hate, and unhappiness in the world? What can I do to make my very short, miniscule fraction of time here worthwhile, joyful and meaningful?

That's a lot to contemplate... And what usually happens on a Grand Canyon river trip, in between these brief, lucid moments of realizing our place in the big picture, is that we live purely for the day, laughing from one river mile to next with wild abandon and sheer joy, throwing all previous burdens of worries to the wind. What a liberation. Maybe that is why we are here. Maybe we are meant to experience life within the river of time, which has no past and no future, only the present moment, opening a new dimension of possibility. Maybe this is where life can truly be experienced in its' fullest form, free from the conditioned beliefs that the past has chained us to and free from the anxieties and expectations of what is to come.

"Idealistic, spiritual, bull crap", I can hear you say, yes, especially in these crazy, hard times. Not everyone has the luxury of a river trip or even a full belly for that matter. Some now are mourning their lost, loved ones or living a life plagued with violence and fear. So, what do we do? Do we just buy into the sadly popular idea that to each his own and screw everybody else? Are we

few, lucky ones just going to hide out in the Big Ditch forever? Or, we can go back to the idea that none of it even matters in the big picture anyways. A million years from now, no one will even know that we were ever here. But, if you're like me, then none of those ideas are going to cut it. So then, the question still stands, "What can I do to make my journey here on planet Earth meaningful and joyful?"

I certainly do not have the answer for you and the answer, I'm sure, is different for everyone. The journey of a water molecule goes from being part of the river, to a cloud, to rain and back to the river again. Some molten rocks make a journey from the center of the Earth and harden into dark, dense masses only to then transform to beautiful, clear, crystalline structures. What then, in the big picture, is our destiny as humans? Where does our own life fit in? Do we have the potential to transform like a metamorphic rock before we drive ourselves to extinction?

We are all on a journey, and I do know this, my friend...we will encounter rapids and rock falls up until the very end. But, with these obstacles come rewards and rainbows too, and it is up to each and every one of us to guide our own boat through. We are responsible for our actions, reactions and the words we do or do not say. We can realize that we are writing the script and that we're starring in our own play! We can find and share our passions and lend a loving, helping hand. We can be loyal, honest and courageous,

and know when to take a stand. Reality starts from within and is reflected in the world we see. So with an open mind and compassionate heart, we will endure our journey more easily. Good luck, dear one and hold on tight when need be. Have faith and trust that there is more to this than we can see.



"The Journey" by Erica Fareio

Erica Fareio

Stanton's Cave: Another Important Grand Canyon Anniversary

ALL SOUTHWEST RIVER RUNNERS know that 2019 marks the 150th anniversary of John Wesley Powell's first Grand Canyon expedition, an epic journey memorialized this year by a spate of new books about Major Powell's life and explorations. Perhaps few know that 2019 marks another Grand Canyon anniversary: fifty years since the Stanton's Cave archaeological expedition.

The Stanton's Cave project, sponsored by the National Geographic Society, was organized and led by anthropologist Robert C. Euler, assisted by Bruce Harrill of the University of Arizona, with a field crew of three current and former Euler students, Larry Powers, Bob Page, and me (I was the youngest member of the expedition, having just completed my sophomore year at Prescott College). Our main objective was to discover clues to the cultural affiliation and lifeways of the prehistoric hunters who left caches of split twig figurines in Stanton's and other Grand Canyon caves. Fashioned from split willow twigs (*see photo*), these unique artifacts have been found in caves in the Grand Canyon and at multiple sites in the Mojave Desert of eastern California, southern Nevada, and most recently from a cave in southeastern Utah. Dating to the late Archaic Period (circa 3000 to 4000 years before present), split twig figurines likely represent a form of imitative magic designed to ensure success in the hunt. Unfortunately, the hunters who placed the figurine caches did not live in the caves, so they left behind little in the way of diagnostic material culture. Who were these enigmatic hunters? Our goal was to find out.

And so, on June 11, 1969, we turned off Highway 89 near Cedar Ridge and followed a faint two-track to within half a mile of the east rim of Marble Canyon where our helicopter was waiting to ferry people and equipment down to the beach in front of

Stanton's Cave (a willow lined beach that has long since migrated downstream). Our supplies included a field kitchen with enough canned and dehydrated food to last a month, and enough whiskey to entertain a continual flow of visiting scientists. Sanderson Brothers River Expeditions supplied us with fresh food supplements once a week. Lessons in food preservation were quickly learned. We immersed four crates of fresh eggs in the cold waters of the

Colorado in hopes that the chill would preserve the eggs for the duration of the project. Within a week or so river water seeped through the permeable egg shells and spoiled the bulk of our stockpile, whereupon we joined in a contest to see who could throw a rotten egg to hit the Red Wall cliff across the river (almost all our efforts fell in the river, well short of the mark!).

To make a long story short, the expedition failed to achieve its main objective. Over a hundred split twig figurines had been illegally removed from Stanton's Cave prior to our study, and during the course of our excavations 74 additional figurines were recovered, most from beneath rock cairns near the mouth of the cave or from the cave's multiple pack rat middens. Unfortunately, with

the exception of some twined Yucca cordage (string) associated with a nearby eleventh-century Ancestral Pueblo occupation at the mouth of South Canyon, no cultural materials were found with the figurines. However, the recovery of paleo-environmental data from Stanton Cave's powder-dry deposits more than made up for the archaeological deficits.

During the month-long project we completed two test trenches down to bedrock, about 1.5 meters (sixty inches) below the current cave floor. Roughly a meter down in both trenches we encountered a thick deposit of driftwood that we had to "saw" through in



Stanton's Cave. Photo credit: John Ware.

order to extend our trenches to bedrock. In the interstices of the driftwood limbs and branches were pine needles and fragments of pine cones, similar to the flotsam and jetsam often left on the beach after the tide goes out. At the time we had no idea how old the driftwood was (or else we wouldn't have



Spilt twig figurines at the GCNP Museum Collection. Photo credit: Amy Harmon.

burned some of it in our campfire!). A date of 43,000 ±1800/-1500 years before present was eventually returned by the USGS radiocarbon lab at Menlo Park, California. We also learned that many of the bones found above the driftwood layer were from extinct Pleistocene (Ice Age) fauna. Due to the cave's dry conditions all the bones were un-fossilized, so their ages could be directly determined by C-14—a rare paleontological deposit indeed!

By 1984, when the results of our excavations were published, Stanton's Cave remained the largest avian fossil collection ever recorded in Arizona. Over a thousand bird bones were recovered, nearly two-thirds of which were sufficiently complete to allow species identification. The most exciting find was a partial cranium and complete right humerus of a Merriam's teratorn (*Teratornis merriami*), a large Pleistocene raptor with an eleven-foot wing span. A direct C-14 date from the Teratorn humerus came in at 15,230 (± 240) years before present, near the end of the last major Ice Age (the first direct age determination of this extinct species). In addition, over 68 individual California condor (*Gymnogyps sp.*) bones were recovered. Five of these bones came from late Pleistocene stratigraphic levels, demonstrating that condors were well established in northern Arizona during and after the last Ice Age. Other important bird finds included the remains of an extinct turkey (*Meleagris crassipes*) and the complete skull of a clay-colored robin (*Turdus grayi*), whose current range rarely extends north of the Mexican tropics.

Bones from various waterfowl, mostly ducks, accounted for just over half of the avifauna from

Stanton's Cave—a proportion similar to other Southwest and Great Basin Pleistocene cave deposits. It is doubtful that waterfowl entered the cave of their own accord. Predators or scavengers were likely responsible for most of the duck remains, and fish bones probably entered the cave by the same route.

Bones from multiple species of native Colorado River fish turned up in our screens, including the bones of humpback chub, bonytail chub, Colorado River pikeminnow, flannelmouth sucker, and bluehead sucker. Of all the indigenous Colorado River fish, only the razorback sucker was missing from the assemblage.

The remains of ungulates (hoofed mammals) were distributed throughout the cave deposits. Eighty percent of the ungulate bones were identified as Harrington's mountain goat (*Oreamnos harringtoni*), which became extinct at the end of the Pleistocene. Bones of extinct horse (*Equus sp.*) and camel (*Camelops sp.*) were also recovered, along with the bones of bighorn sheep (*Ovis canadensis*), the dominant ungulate in the canyon today. The stratigraphic evidence suggests that bighorns likely filled the ecological niche vacated by mountain goats at the end of the Pleistocene. In addition to bones, hundreds of ungulate fecal pellets were recovered in our excavation screens. Pellets in the upper 25 CM (ten inches) of cave deposits were similar in size and shape to modern bighorn; below 25 CM the slightly larger pellets of extinct mountain goats were predominant. Studies of plant pollen and macro plant parts preserved in the fecal pellets provided a window into past environmental conditions in the Grand Canyon. For example, during the late Pleistocene the plant community around Stanton's Cave resembled plants that now grow 1500 feet above the current river level, and driftwood was dominated by Douglas fir (*Pseudotsuga menziesii*) and cottonwood (*Populus sp.*). Significantly, pinyon pine, one of the dominant upstream species in the

Colorado River basin today, was absent from the driftwood assemblage.

Despite insights gained from an extraordinary collection of paleo-environmental data, a significant mystery remains. How did driftwood get into a cave whose mouth is 44 meters (144 feet) above the current river level? Entrenchment of the Colorado River in the Grand Canyon is measured in millions, not thousands of years, so it is unlikely that significant entrenchment has occurred in the last 43,000 years—an eye blink in geological time. And at current river levels, it would take a flood of 283,000 cubic meters per second (nearly ten million CFS!) to inundate Stanton’s Cave. Could glacial melt and perhaps upstream ice dams during the Pleistocene have created such a massive flow? Perhaps, but it is unlikely that a flood of such magnitude would have deposited pine cones and needles in the interstices of the driftwood deposit. The physical remains looked more like slack water deposits, raising the possibility of a dam somewhere downstream that backed up water into the cave. We know that downstream lava flows periodically damned the river, and large landslides may have created temporary lakes as well. Richard Hereford of the USGS in Flagstaff suggested that a large rock fall in the vicinity of Nankoweap Rapids—debris from the landslide is preserved near the mouth of Nankoweap Creek—may be closer in age to the flood that inundated Stanton’s Cave. However, the absolute age of the Nankoweap

rock fall is not known, so the jury is still out.

The results of the Stanton’s Cave expedition are summarized in a 1984 edited volume published by the Grand Canyon Natural History Association: *The Archaeology, Geology, and Paleobiology of Stanton’s Cave*, edited by Robert C. Euler, with chapters written by fifteen natural history scholars. In the conclusions of that volume, famed environmental scientist Paul Martin summarized Stanton’s Cave’s significance and the importance of preserving other Grand Canyon cave deposits: “The caves and their contents are worthy of the best efforts of National Park Service managers to protect them. Carefully studied, the contents of the caves offer scientists a unique opportunity to test various competing theories on the nature of Ice Age climate change, the extinction of late Pleistocene fauna, and the fate of prehistoric man himself. The contents of its caves, no less than its scenery, are worthy of the adjective ‘spectacular.’”

John Ware

NOTE: John Ware is a retired archaeologist who lives in Santa Fe, New Mexico. A former director of New Mexico’s Laboratory of Anthropology and executive director of the Amerind Foundation of southern Arizona, Ware is the author of *A Pueblo Social History: Kinship, Sodality, and Community in the Northern Southwest* (School for Advanced Research Press).



“Our Only One” by Erica Fareio

Guide Profile

Erica Fareio, Age 43

WHERE WERE YOU BORN & WHERE DID YOU GROW UP? I was born in Riverside, CA and then moved to Prescott, AZ when I was 13.

WHO DO YOU WORK FOR CURRENTLY (AND IN THE PAST)? I have worked for Arizona River Runners since 1997. In 2011, we took over Diamond River Adventure's permit and made Grand Canyon Whitewater, now our sister company. I work for them too. It is two different booking offices but the crew and operations warehouse are one big happy family!

HOW LONG HAVE YOU BEEN GUIDING? For 22 years. Sure goes by fast!

WHAT KIND OF BOAT(S) DO YOU RUN? I learned on the S-Rigs and still drive them once or twice in a season. Mostly now I row an 18-foot oar boat. I've rowed the Dory a bit too, but never the whole way through and I've paddled some.

WHAT OTHER RIVERS HAVE YOU WORKED ON? I've worked a handful of trips on the Rogue in Oregon and have done lots of other rivers for fun. One of my favorites is the Pacuare in Costa Rica. It has that same sort of magic that Grand Canyon has.

WHAT ARE YOUR HOBBIES/PASSIONS/DREAMS? I am one of the lucky ones. My hobbies, passions and dreams have morphed into this one, single thing: my everyday. Living it. Striving to move forward. Striving to grow and evolve—everyday.

MARRIED/FAMILY/PETS? Yes, I am married to the most amazing man I know who is also my best friend, John Taylor. For nearly six years, I have also been full-time mama, mentor and friend to his now w thirteen year-old son, Cash. We have two adopted rez dogs named Thunderbolt and Daisy. They (the dogs) just went on their first ever boat ride out on Marshall Lake. It was hilarious!!!

SCHOOL/AREA OF STUDY/DEGREES? AND WHAT MADE YOU START GUIDING? I started out as an art major at the University of Arizona and then the following year transferred to NAU and changed majors. I have a background in botany with an emphasis on Southwestern ethnobotany. I also did a seven-



year internship with Phyllis Hogan, renowned ethnobotanist and herbalist. Her daughters, Denise and DeeAnn Tracy, were both river guides and they were a big part of why I became enamored with the river guiding community. I'd hear all about their adventures and wanted more than anything to go on the river too. I felt like a little kid jumping up and down, shouting, "Pick me! Pick me!" So, first opportunity I got, I went as a "work your way" on an ARR motorized trip. I was hooked. I had found my tribe! Phyllis was amazingly supportive and I was able to still keep my job with her and do river trips. This went on for a couple of years, then it was time to let someone else play the coveted part of Phyllis' right hand woman. By then, I was doing ten to twelve trips in a season.

WHO HAVE BEEN YOUR MENTORS AND/OR ROLE MODELS? It seems unfair to list any one person or just a few, because there has been so many! Of course Phyllis Hogan and her daughters, DeeAnn and Denise. I very much look up to them and they have inspired me to be strong and to do something unique and meaningful with my life. Others...Bill Gloeckler, Walt Garrison, Russell Means, Serena Supplee, Jon and Ruthie Stoner, Tim Whitney, Nancy Helin, Walt Taylor, my mom Alanna Larson...I could go on and on...love you all.

The greatest mentor of all has been the river itself. The river has given me a path with heart. I have not

found a better metaphor than the river for our daily ups and downs, challenges and relationships. The river has taught me so much about believing in and trusting myself, how to be humble and open, how to commit and follow through, how to do your best and how to carry that over into other aspects of life.

IS THIS YOUR PRIMARY WAY OF EARNING A LIVING OR DO YOU COMBINE IT WITH SOMETHING ELSE? For about six years now, I have been doing four river trips a year. For me, and where I'm at in life, this is perfect. The rest of the year, and in between trips, I am focused on my art and family life. The river is still a huge part of how the art and inspiration happens. It is essential, integral and I cannot imagine life without it!

I am no longer a "starving artist" which is pretty cool! I feel very blessed to be able to make a simple, happy life doing what I love. I am full of gratitude for the river guiding community and my family for cheering me on, being supportive, and buying my art. In the beginning, especially, I got lots of help from other river guide/artists on how to make that leap from art as a hobby to art as an income. It has taken years of hard work and dedication to the path to finally feel like I can consider myself a successful artist. I am super stoked to see where it all goes.

WHAT'S THE MOST MEMORABLE MOMENT IN YOUR GUIDING CAREER? One that pops to mind is when we found out about 9/11. It was an ARR motor trip and we were camped early at Granite. We were playing "hunker down" and having a birthday party. A private trips rolls in to scout the rapid and one of the guys comes over and says, "Crazy! All Hell's broke loose up there!!" We had no idea what he was talking about. Did they have a bad run in Horn Creek? And then he proceeded to tell us that the World Trade Centers were down and another jet had crashed into the Pentagon and on and on. We were stunned. At first we thought it was a joke. I guess they had called out at Phantom Ranch and got the news. We had just stopped for water. In an attempt to not create chaos, we told him to *not* tell any of our passengers but, it was too late. A couple of kayakers pulled in down stream and had about half a dozen of our passengers captivated by the horrible news. Soon, we called home on the SAT phone and got a hold of Stoner. And, sure enough, it was all true and worse. We made an official announcement to the group after dinner. Nearly all of our passengers were from New York. And later, we found out that two of these guys were some of the actual civil engineers that poured the concrete for the World Trade Centers and between them all they knew over 200 people that worked in

the towers. No kidding. It was an emotionally charged scene, for sure. Everyone was crying and everyone wanted to either call home or go home. We all sort of felt helpless down there. The next few days were surreal and we took comfort in each other and in the Canyon. Our lower end "tag" trip didn't make it because all air traffic had stopped and then we drove out empty. I think everyone probably remembers where they were when they found out about 9/11.

WHAT'S THE CRAZIEST QUESTION YOU'VE EVER BEEN ASKED ABOUT THE CANYON/RIVER? You know that slab of Coconino Sandstone that sticks straight up out of the river that we call, "10-mile Rock"? This woman once asked, "Does that rock go all the way to bottom?!" We've laughed so many times over this one, I think it's turned into a myth!

WHAT DO YOU THINK YOUR FUTURE HOLDS? Well, if we don't run out of water or blow ourselves up, hopefully more of the same! For the near future, I have a show in December. I've been working on it all year and still have a ways to go. It will be a continuous body of work that depicts a visual journey of a snow flake from the top of the San Francisco Peaks down the North side watershed, to the Confluence and eventually to the Sea of Cortez. It will artistically honor as many species as possible throughout all significant life zones, biomes and geological features. I can see myself really delving in and going deep into this theme for quite a while and eventually doing a book. The intention would be not only to create beautiful art, but to help people see how much there is that deserves protecting and how much is at stake if we don't all play a part.

WHAT KEEPS YOU HERE? I love Grand Canyon. I love seeing other people fall in love with Grand Canyon. I love my river family—they are the funniest, hardest working, talented group of people I know. It feels good to have that camaraderie and be part of a tribe.

Check out Erica's art at EricaFareio.com and in person at her show opening on First Friday, December 6TH at West of the Moon Gallery — 14 N San Fransisco St in downtown Flagstaff. It will be up through February.

Back by Popular Demand— Point Positive Workshops, Fall 2019

BUILDING ON THE SUCCESS of our inaugural Point Positive Workshop before the GTS, the Whale Foundation and Grand Canyon River Guides are very excited to co-sponsor two *free* workshops for our river community later on this fall:

POINT POSITIVE WORKSHOP LOGISTICS

DAY/DATE: Friday, November 1, 2019

LOCATION: Canyon Explorations Warehouse, 675 W Clay Avenue, Flagstaff, AZ

WORKSHOP 1 TIME: 9:00-11:30 A.M.

WORKSHOP 2 TIME: 1:00-3:30 P.M.

WORKSHOP 1: COMMUNICATION AS FIRST AID

WORKSHOP REGISTRATION LINK: See Points Positive Workshops under Guide Resources at www.gcrgrg.org.

AUDIENCE: Grand Canyon river guides; Outfitter Leadership and Management

DESCRIPTION: This optional two and a half hour workshop for guides and new leaders is intended to encourage effective conversations and interactions between fellow guides, guests, and team members. We know when trust in teams is built and conflict is handled well, trips are safer, more inclusive and respectful, ultimately more enjoyable for everyone involved. This workshop begins to identify why it can be so challenging to have effective conversations, addresses actively dealing with conflict head-on when necessary, and how to encourage trust and teamwork among crews. We all communicate all the time and we all can stand to do it a little better; this is an opportunity to learn how!



WORKSHOP 2: INCLUSIVE & RESPECTFUL WORK ENVIRONMENTS

WORKSHOP REGISTRATION LINK: See Points Positive Workshops under Guide Resources at www.gcrgrg.org.

AUDIENCE: Outfitter Leadership and Management

DESCRIPTION: We understand that the issues of discrimination and sexual harassment have become a pressing national conversation. With this in mind, Workshop #2 provides outfitter leadership/management with effective scenarios and tools to promote safe and respectful work environments, and create an effective plan for inclusion.

Why should you sign up? We would like to share with you some of the compelling data and feedback from the initial Point Positive Workshop last spring:

- 100% of respondents agreed/strongly agreed with the statement: “The workshop provided was worth my time.”
- 90.1% of respondents agreed/strongly agreed with the statement: “The workshop provided was applicable to my work and provided useful information.”
- Workshop Feedback Comments:

“This was so incredibly helpful and critical for our Grand Canyon community. I know you don’t care for mandatory trainings, but I would love to see more outfitters include this in their pre-season orientation. I am so grateful to GCRG & WF for hosting this. I would absolutely love to see more.”

“Workshop was very helpful, and seems necessary as an annual or semi-annual event. Would like to see this happen again, and would like to see greater attendance! The river community has limited access/options for management and leadership training within the realm of interpersonal communications, relationship building, and people/team management. So this event was a great option and hopefully it’s only the start.”

“As a first year guide and someone who isn’t a “traditional raft guide” it helped me understand that this job will be tough for reasons unrelated to our boats or clients and that I shouldn’t feel alone or afraid to speak up for myself or those around me.”

Everyone deserves to work in a positive, supportive, and inclusive environment, even when the amazing workplace happens to be in the bottom of Grand Canyon. As Point Positive workshop participant, Melissa Giovanni, wrote in the last BQR, “*We spend our trips striving to help our guests feel the magic of the Grand Canyon. Imagine the magic we can cast when we all feel supported and valued within our own Grand Canyon family.*” (BQR Vol 32 #2, “*Point Positive: Why We Need This Workshop More Than Ever.*”) We urge you to take advantage of these outstanding learning opportunities to gain new skills and insight. These helpful workshops provide essential tools to serve our river community and move us forward along the path of culture change. We’re all in this together!

GCRG “Day of the Dead” Celebration!

WHERE: Brad Dimock’s Boathouse
1000 W. Grand Canyon Avenue,
Flagstaff, AZ

DATE/TIME: Thursday, October 31, 2019,
from 4:30 P.M. to 9:00 P.M.

SUGGESTED DONATION: \$20

Here’s the scoop on this super fun, family-friendly event that celebrates the end of the river season while honoring our shared river heritage and close-knit “river family”:

- Historic boat replicas (with “*ofrendas*” honoring the river runners who built the originals)
- Mexican Food Truck (please bring \$\$)
- Music
- Face Painting



- Meet and greet the changing faces of the folks at the forefront of our Grand Canyon community.

OTHER THINGS YOU NEED TO KNOW:

- Please carpool and park way down the hill (do *not* park in Brad’s driveway)
- Dress for the weather—the event will be mostly outside.
- Much of the brainstorming for this event occurred at Lees Ferry, so you know it’s going to be awesome, ha ha!

You should join us! No need to register in advance—just come on over to Brad’s boathouse (AKA Fretwater Boatworks) and celebrate “*Día De Los Muertos*” with GCRG!

Save the Date!



SAVE THE DATE

20TH ANNUAL RIVERS & REELS FUNDRAISER

Saturday, November 2nd, 2019 • 5:00 pm

Coconino Center for the Arts
2300 N Fort Valley Rd
Flagstaff, AZ 86001

\$15 Individual • \$40 Family



Glen Canyon Dam and the Colorado River: 56 Years of Ecosystem Changes, Ecological Surprises, and Consequences

INTRODUCTION

THE REGULATED Colorado River ecosystem (CRE) in Grand Canyon, along with our understanding and stewardship of it, have changed dramatically since the gates of Glen Canyon Dam were closed 56 years ago on January 2, 1963. The Colorado River extends 293 mi (471 km) between Lake Powell (Glen Canyon Dam) and the delta of Lake Mead (created by Hoover Dam), the two largest reservoirs in the

contiguous United States, but just two of nearly a dozen large federally-managed dams or diversions in the Colorado River basin. Glen Canyon Dam was authorized under the Colorado River Storage Project Act (1956), with construction beginning on June 15, 1960 and ending on September 13, 1963. The dam lies 25 km upstream from Lees Ferry, about half way along the course of the river, as it flows from southwestern Wyoming to the Sea of Cortez. Here I briefly describe

Table 1: A brief history of CRE changes in ecology, scientific understanding, and stewardship policy and practice. Some dates are based on the author's

Year	Novel CRE Change	CRE Science Findings	Policy Issues
1963	Flow regulation begins		GC Dam construction completed
1964			GC Dam power production initiated
1965	Clear water at Lees Ferry, variable temperature	Humpback Chub abundant at mouth of Paria River and at Lees Ferry	Reservoir equalization and channel clearing flows of 65,000 cfs for one month
1966	December rain-on-snow causes major tributary flooding, Crystal Rapid becomes a major rapid		Sierra Club and David Brower prevent construction of Marble Canyon Dam brings American environmentalism to life
1967			AGFD - truckloads of aquatic organisms, fish dumped into the river
1969			Unprecedented interest in river running
1970	P. Martin reports riparian vegetation colonizing shorelines, esp. tamarisk		
1973	Clear, constantly cold water is now normal		Endangered Species Act; summertime high flows
1974	First ecological inventory of CRE		Wilderness Act
1975	Waterfowl abundantly occupy upper Grand Canyon in winter	Endemic McDougall's <i>Flaveria</i> discovered at Cover Canyon	
1976	Last Colorado Pikeminnow observed in GC; Last Humpback Chub in tailwaters?; last Northern Leopard Frog reported in Grand Canyon	Feral burros constitute a major threat to GC riparian zone	Reshaping rapids - will rapids worsen in post-dam time?
1977	Only 4-6 Peregrine pairs exist in GC; Muskrat observed at Mile 186L by LES		Extreme drought causes Reclamation to run springtime flows of 1-2K cfs
1978	Roundtail and Bonytail Chubs extirpated; last Razorback Sucker in GC caught at LCR		Redwoods Act (NPS finally recognizes science as an attribute of National Parks); "Let's pack it all out"
1979		First riparian map of CRE vegetation	United Nuclear Corp. Church Rock Mine (upper LCR) uranium spill, the argest uranium spill in US history
1980	Blue-winged teal nesting on river in Marble Canyon; First GC Western Threadsnake discovered at Mile 122	R. Turner and M. Karpiscak identify major riparian vegetation changes	Glen Canyon Dam fills after 17 yr; brief high flow event conducted
1981			GC Dam rewinding controversy and discussion of hydropeaking flow impacts on Grand Canyon beaches
1982	First Mallards nest in Marble Canyon		GC feral burro removal program; Sec. Interior James Watt throws funding at BOR to address dam impacts, BOR hires David Wegner, GCES Program begins
1983	First Endangered Bald Eagles observed wintering in Marble Canyon; LCR mouth ponded, loaded with larval fish; Zebra-tailed lizard extirpated from Grand Canyon	Flood flows affect sediment transport and CRE (vegetation)	Extreme inflows fill, nearly destroy GC Dam; river running impacts

Year	Novel CRE Change
1984	Last observed Colorado River Otter at Awatubi by T. Bryant; Energy Fuels Nuclear, Inc.'s Hack 1 Mine uranium spill contaminates Kanab Creek
1985	Toads calling, breeding throughout CRE in riverside pools; ca 2000 cfs flood through Royal Arch Creek
1986	Toads calling, breeding throughout the CRE in side pools
1987	Return of normal low flows
1988	
1989	Bald Eagle concentration reported at Nankoweap Creek
1990	Last Leopard Frog observed in Grand Canyon; nesting Great Blue Herons on Lake Mead; Ravenna grass invasion initiates eradication program; severe winter freeze
1991	Wild Turkeys colonize Marble Canyon
1992	First Collared Peccary discovered north of Colorado River (204R)
1993	
1994	
1995	Limited <i>Chara</i> colonization in Marble Canyon
1996	LMFF flow regime proposed in EIS
1997	Top-of-powerplant flow experiment
1998	New Zealand Mudsnail invades CRE; endangered SWWF extirpated from Grand Canyon
1999	Humpback Chub population crash

the serial discontinuity concept (Ward and Stanford 1983) that largely explains why balancing environmental and economic values is so difficult in Grand Canyon. I then identify ecological changes that have occurred over the past 56 years, as well as policy shifts that have influenced the CRE development since its impoundment by Glen Canyon Dam. I conclude with a discussion of possible futures for this iconic river ecosystem.

SERIAL DISCONTINUITY: NOT AN INTERRUPTED BREAKFAST

Downstream river ecosystems respond to upstream impoundment through recovery of natural sediment transport, water quality (e.g., water temperature), and other variables in relation to the distribution and size of tributaries downstream from the dam. A dam creates

an ecological discontinuity, which can be mitigated by tributaries. In the case of the CRE, the Paria and Little Colorado Rivers deliver fine-grained sediments and water in quantities that restore some of the natural qualities of the undammed river. Of course, the size and location of those tributaries are critical to the extent to which natural mainstream conditions can be recovered. With the large Glen Canyon Dam positioned about mid-way along the Colorado River's course, full restoration of natural CRE water quality and flow would require larger perennial tributaries than the Paria and Little Colorado Rivers. My colleagues and I estimated that recovery of a quasi-natural water temperature regime in the CRE would require a thousand kilometers of unimpeded downstream flow, more than exists

memories and may warrant more specific research.

CRE Science Findings	Policy Issues
Flood flows affect sediment transport and CRE (vegetation)	GCES studies underway
Flood flows affect sediment transport and CRE (vegetation)	GCES studies underway
Flood flows affect sediment transport and CRE (vegetation)	GCES studies underway
Scouring of shoreline vegetation; High flows do not stimulated mesquite growth	GCES studies underway
Completion of GCES Phase 1 report	GCES "Dam affects CRE; but how?"; GCRG Association begins
	GCESII starts; planning experimental flows
GC supports largest breeding population of Peregrine Falcons in 48 states; experimental flows are conducted	Interior calls for an EIS on dam operations; major flow experiments begin; extreme daily flow variation ends
Flow experiments are conducted; Kanab Ambersnail identified at Vaseys	EIS writing begins; Ravenna-grass removal in GC; Initiation of MLFF flow regime to protect resources until the EIS is completed
Dam operations influence Bald Eagle foraging behavior	Grand Canyon Protection Act requires consideration of environmental as well as economic/policy factors
	First planned flood experiment proposed
	Non-use values study completed - Americans care strongly about integrity of GC
First planned flood experiment took three years to implement	Recognition that planned high flows can be used to manage sand deposits; Bald Eagle down-listed; California Condor reintroduction
Limited benefit to sand storage from top-of-powerplant flows	AMP ROD signed; Test of powerplant capacity flow
Grand Canyon waterbird diversity is related to dam operations	
	Humpback Chub population considered to be threatened by Rainbow Trout; Peregrine Falcon delisted

Year	Novel CRE Change	CRE Science Findings	Policy Issues
2000	Trout control effort begins; last Northern Leopard Frog population in CRE disappears from -9L Marsh		Summer steady flows experiment (most costly ecosystem experiment at \$35M - no significant benefit to GC resources); Lees Ferry NPS-GCWC riparian restoration project initiated
2001	Steady summer flows, with a May and a September "spike" flow within powerplant capacity; nesting Great Blue Herons at Lees Ferry	This was one of the most expensive ecosystem experiments ever conducted at the time.	Long heralded as the panacea for native fish management, steady flows do not benefit native fish. Instead, steady flows created favorable conditions for non-native plant establishment
2002	Double-crested Cormorant nesting in Glen Canyon reach		Flood triggering criteria established
2003			Grand Canyon tributary tamarisk control
2004			HFE
2005	Nesting Great Blue Herons at Lees Ferry; -9L Leopard Frog population extirpated	Yard et al. (2005): Solar radiation limits aquatic production in GC	Anoxic releases; Lees Ferry riparian restoration project completed
2007	Quagga Mussels collected in random samples in Lake Mead		
2008			Hidden Slough restoration project initiated; HFE
2009	Tamarisk leaf beetle reported in GC	Steady fall flows do not increased endangered Humpback Chub growth	Steady fall flows do not benefit native fish
2010	Muskrats observed in the CRE; nesting Osprey in Glen Canyon		HFE criteria established
2011	Widespread tamarisk defoliation in upper and lower GC		Desired Future Conditions established by the Adaptive Management Work Group, but no metrics defined
2012	Hog-nosed skunk rediscovered in lower GC		HFE
2013	Razorback Sucker and many Humpback Chub detected in lower GC		HFE
2014	Abundant quagga Mussel veligers in Lake Powell		HFE
2015	Green sunfish in Glen Canyon Reach	First salamander discovered in CRE	HFE deferred to prevent downstream dispersal of non-native sunfish
2016	Continued Green Sunfish and Brown Trout invasion into the Glen Canyon reach	Non-native <i>Phragmites</i> at Paria Beach; Coati sighted at Spring Canyon	HFE
2017	Quagga Mussels density = 1000/m ² in Glen Canyon Reach; also found in GC at Tapeats Cr and Granite Park	Benthic and hyporheic anoxia dominate lower Lake Powell Reservoir and the Glen Canyon reach	Humpback Chub proposed for downlisting; Green Sunfish control efforts in Glen Canyon NRA; HFE not conducted due to lack of sediment input from the Paria River
2018	Continued Green Sunfish, Brown Trout, and Quagga Mussel invasion into the Glen Canyon reach		HFE; Bug flows initiated to increase aquatic foodbase; Green Sunfish control
2019	Continued Green Sunfish, Brown Trout, and Quagga Mussel invasion into the Glen Canyon reach		HFE; Bug flows initiated to increase aquatic foodbase; Green Sunfish control

between the two reservoirs (Stevens et al. 1997a). The theory that the ability of rivers to recover from impoundment depends on the location and size of the dams in relation to the drainage basin is called the “serial discontinuity concept” (Ward and Stanford 198_), a theory that also predicts where trade-off conflicts between natural and artificial fluvial processes are likely to occur. Therefore, CRE stewardship is uniquely positioned to generate stewardship conflicts and controversy.

A BRIEF HISTORY OF COLORADO RIVER ECOSYSTEM CHANGES

Many seemingly minor, but cumulatively important ecological changes, and some surprises, have occurred rather consistently over post-dam time. Some changes occurred in Grand Canyon prior to the dam. For example, Bermuda grass was introduced by the Bureau of Indian Affairs into, and escaped downstream from, Havasu Creek after a severe flood in January 1910 (Melis et al. 1996). The NPS unsuccessfully introduced Pronghorn onto the Tonto Platform, and successfully introduced Rainbow Trout into Grand Canyon’s coldwater tributaries decades before the dam. Other changes occurred regionally outside of Grand Canyon, either before or after the dam, with sometimes dramatic impacts on the CRE. For example, non-native carp

Table 2: Decadal overview of CRE changes in relation to policy and management decisions.

Decade	Decadal Characterization	Change
1960's	Transition shock	Flow stabilization; clear water; growing public appeal and use; NPS concern
1970's	CRE initial adjustment during Lake Powell filling	Cold water temperature stabilization; riparian vegetation establishment and encroachment into the riparian zone; native fish decline; Endangered Species Act influence fish management; ecosystem naturalization
1980's	Unforeseen dynamics	Filling Lake Powell; unplanned flooding; administration concern; public concern over generator rewinding initiates GCES dam impact studies; EIS on dam operation effects initiated
1990's	Enforced equilibration	Ecosystem analyses demonstrate dam impacts; EIS formalizes multi-stakeholder environmental management; GCES conducts first high flow experiment, and GCES is the Glen Canyon Dam Adaptive Management Program (AMP) is initiated; USGS monitoring and research (GCMRC) program begins
2000's	Normalization	Ecosystem, science, and policy/administration processes are formally adopted and shaped by AMP; both constant and flood flow experiments are conducted; November high flow events become accepted CRE management actions
2010's	Further constraint	Desired future conditions are accepted by the Secretary of the Interior, but metrics are not quantified; AMP proceeds, and the LTEMP is approved and adopted

and catfish were introduced for food into the lower Colorado River Basin prior to 1909 (Grinnell 1914); non-native tamarisk was introduced into that reach for bank stabilization in the lower Colorado River basin (<https://www.gcrg.org/bqr/6-2/scourge.htm>); and non-native tamarisk leaf beetles were introduced a century later into southern Utah for biological control of tamarisk. Many changes were intentional management actions, such as the Arizona Game and Fish Department introductions of a host of invertebrates and fish species into the river at Lees Ferry just after completion of the dam. Among the successful transplants were Gammarus scud, and Rainbow and Brown Trout (Stone and Rathbun 196_; Minckley 1991).

In post-dam time, the CRE continues to adjust to an array of internal and external ecosystem changes and transitions (Table 1). These can be roughly divided into different patterns on a decadal scale (Table 2), including: 1960s ecological transition shock; 1970s initial adjustment during the filling phase; 1980s unexpected dynamics related to flooding that ended the filling phase and initiated reservoir management;



Wildlands/GRCA riparian restoration site at Mile 6.5R.

1990s enforcement of ecological equilibration; 2000s normalization of dam management policy and practice; and 2010s reaffirmation of management policy and monitoring practices.

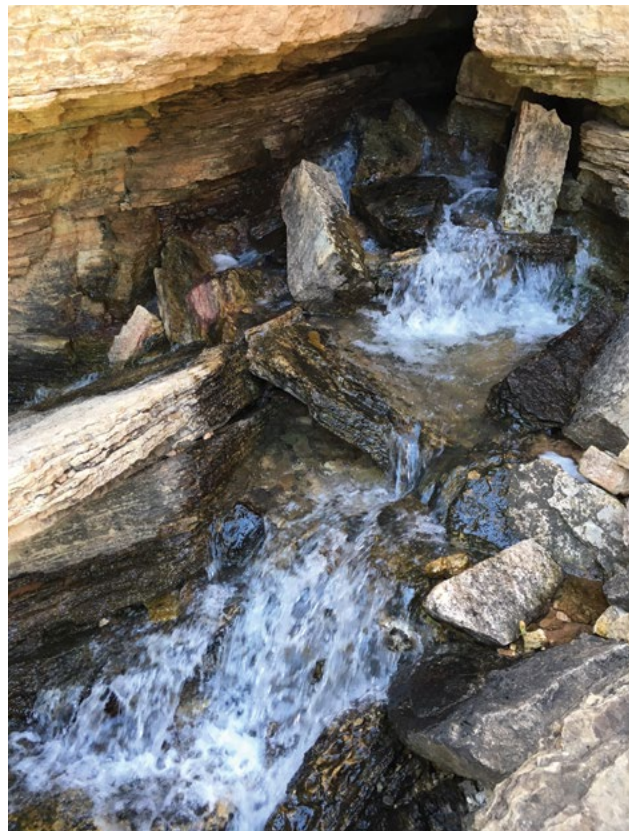
DISCUSSION

Humans modify ecosystems to suit their desires, typically by limiting natural disturbance dynamics and by simplifying ecosystem interactions and species composition. For examples: farmers seek to maximum production of (typically) a single crop species; construction of breakwaters on coast lines to protect poorly placed buildings; and wildfire suppression is conducted to maximize tree harvest. So too has it been with dam construction impacts: natural disturbance (flooding) is often reduced and controlled, and while sometimes more productive, aquatic species composition has been reduced and simplified, particularly through the loss of predators that might compete with humans.

In the case of the CRE, flood control by Glen Canyon Dam has stabilized the geomorphology of the river corridor, “training” it to the 45,000 CFS stage elevation through repeated planned high flows at or just below that level. Flow regulation has reduced and simplified aquatic diversity, although post-dam aquatic productivity is much greater than that in pre-dams (2012). Biological diversity in the aquatic domain is low (although increased. In contrast, ecological stability of the riparian domain has resulted in colonization of the shorelines by both wetland/riparian and upland plant assemblages, with riparian zonation largely driven by the physiology and regeneration niche requirements of individual plant species, as well as other biotic factors, such as palatability to beaver (Stevens 2012). Unfortunately, some of the nearly one hundred non-native CRE plant species are replacing other non-native species (Stevens and Ayers 2002). For example, since 1990, non-native Ripgut Brome has become widely established throughout the riparian domain, which formerly was dominated by the more diminutive Red Brome. Dedicated river guides like Dan Hall have devoted considerable energy to preventing some potentially disastrous non-native species from dominating the CRE riparian zone, such as Ravenna Grass. Bravo Dan Hall, and keep up that good work!

CONCLUSIONS

In 1969, Marie Morisawa proposed the Dynamic Equilibrium Model, describing how river channel geomorphology trends towards equilibrium (an energetically steady state condition), a state that is never achieved because perturbations from flooding,



Roaring Center Springs. There is growing appreciation of the fact that springs in GC provide 10,000 liters/sec of flow, making up nearly five percent of the base flow of the river.

upstream and upland geomorphic changes, or river management policy shifts, as well interactions among antecedent events. I suggest that the Morisawa’s model is applicable not only to fluvial channel evolution, but also to river ecosystem and even societal development. The model directly applies to the CRE because the channel and associated flood terraces serve form the template that is colonized by river corridor life and on which the ecosystem develops. Lagged ecosystem responses to changing conditions depend on the magnitude, frequency, duration, and timing of physical changes in the channel and past events. For example, sediment deposits from the 1983–1986 post-dam high flows are still evolving. Humans create dams to increase the extent and predictability of resource extraction (e.g., water, power, recreational values), and perturbation by events (e.g., an El Niño winter) and physical processes, as well as changes in societal demands, reset the trajectory of river ecosystem development in a lagged fashion that never fully adjusts to those changes, and are over-ridden by the next such change.

We live in a world of uncertainty. Known unknowns are abundant, such as the likely invasion of non-native Quagga Mussels and Phragmites reeds into

the CRE, or the likelihood of a debris flow at Bedrock Rapid that closes off the right run. In addition, we are surrounded by unknown unknowns, changes that we cannot begin to guess, but that stand to greatly alter our lives. For example, climate change may create entirely unanticipated extreme events, such as tornados on the rims or long-duration droughts that dry up the river. Glen Canyon Dam has controlled and simplified the CRE, but the steady progression of ecological

surprises demonstrates that this river ecosystem is more complicated than we can understand, and will continue to change in response to both internal and external, natural and anthropogenic, predictable and unanticipated events and processes.

Larry Stevens

REFERENCES: References cited herein are available on request from the author.

Book Reviews

Canyon Country Explorations & River Lore The Remarkable Resilient Life of Kenny Ross; GENE STEVENSON; Living Earth Studios; 2019; 517 pp; ISBN 978-1793136039; \$28.50.

WEIGHING IN AT OVER two pounds this book defies the term “heavy weight!” For anyone interested in Glen Canyon, the San Juan River to its Confluence with the Colorado River, or the Four Corners Area, this book is for you. It is worth the price for the historic pictures alone. There are hundreds of previously unpublished photos of Ross, of areas now under Lake Powell, or ones that have been long forgotten, with such celebrities as Georgia O’Keeffe and Eliot Porter.

Geologist, river runner and writer Gene Stevenson lives in Bluff, Utah and is probably the most knowledgeable person about the San Juan River and the Four Corners Area. I know that the past several years, researching and writing this book have consumed Gene.

Kenny Ross began exploring the canyons of southern Utah in the 1930s. He was an astute geologist, archaeologist, and naturalist. His enthusiasm for sharing his knowledge made guiding trips into the region’s canyons and rivers a natural calling for Ross. Kenny’s early years included many river trips before construction of Navajo and Glen Canyon Dams, affording exciting rides on the unimpounded snow melts from the Colorado Rockies. Between 1950 and 1963 Southwest Expeditions/Wild River Expeditions ran frequent 225-mile San Juan River trips to the confluence of the Colorado and then through Glen Canyon prior to Lake Powell.

Stevenson didn’t just write about the oft overlooked Kenny Ross, he put Kenny into context with the geology,

archeology, ecology and history of the region. You will find few colorful, flowery flourishes or unsubstantiated stories in this book. As a geologist Gene writes in a factual, if not pedantic style that could be used as a college textbook but it is all there and nothing is amiss. If you are just interested in Kenneth Ross, you will have to delve into the background of each topic. As an example, there are around ten pages about the Monument Valley Rainbow Bridge Expeditions leading to just over a page about Kenny’s role in the project. If you are really interested in further pursuing an topic, there are a plethora of notes and references that provide depth and background for Gene’s book.

I believe one reason for Gene’s exacting research and writing is related to wanting his work to be above reproach, especially to those who give credit to many of Ross’s achievements to other historic river runners. This book fills in a giant hole in the history of river running, as well as the documentation of the now flooded/

silted Lower San Juan Canyons and Glen Canyon. Gene’s book puts Ross into the history that defined him.

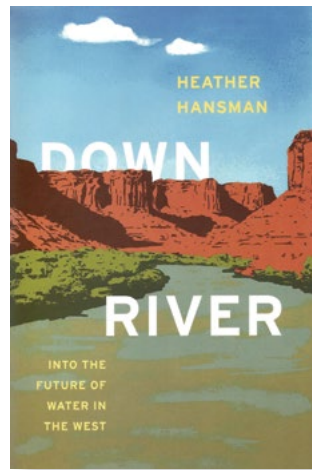
On September 29, 2018, Kenny Ross was inducted into the River Runners Hall of Fame at the John Wesley Powell River History Museum in Green River, Utah.

Herm Hoops

Downriver—Into the Future of Water in the West; HEATHER HANSMAN; University of Chicago Press; 2019; 248 pp; ISBN 978-0-226-43267-0; \$25.00

HEATHER HANSMAN WEAVES her 700-mile trip down the Green River with a panoply of water issues like a esthetical Navajo rug. Her

writing style is colorful, descriptive, pleasant and very readable. Heather's interaction with the people she meets along the way helps focus and explain her storyline. For those unfamiliar with the rules and attitudes about water in the West, Heather sugars them off into understandable descriptions explanations. This is one of the very few books that address the effects of climate change on the rivers of the Colorado Plateau. A book of this scope is bound to have errors or omissions. For example, she overlooks one important group in her writing: The doctrine of the Latter-Day Saints and their impact



on historic and future water issues.

The book covers everything from the Colorado River Compact, Central Utah Project and many other laws, regulations, concerns and agreements from the past. It is a look into culture and how culture affects people's views on the limited water. The book is a great introduction to Western water rights for novices who are just beginning to understand water issues in the arid West and it is a great refresher to the issues of water on the Colorado Plateau. It ponders, throughout what do we want the future of our water to be?

Herm Hoops

Eye of Odin

THIS PAINTING IS INSPIRED by Lava Falls, the Granddaddy of all rapids in Grand Canyon. It's a muddy river with storm clouds brewing to add to the already ominous feeling that you experience in this moment, just before plunging into the frothing waters below. The river boils, churns and swirls in an unpredictable path that will hopefully funnel you just to the right of the Ledge Hole, a feature at the top of the rapid that would surely shred your boat and everything in it. If you have the courage to take your eyes off the quickening entry, maybe you can sneak a glance up at the Eye of Odin, a window in the columnar jointing of the ancient lava flows. The window can only be seen from the river, as you're entering the rapid and nowhere from shore or the scout.

Odin is the god of war and death according to Norse mythology. Upon visiting the Well of Wisdom, Odin begged Mimir (the well custodian) for a drink. Mimir said he must pay for it with one of his eyes, which Odin then gave him. With his newfound wisdom, Odin brought to mankind the runic alphabet and poetry. Whether or not you are able to make contact with the Eye of Odin in this highly charged moment of focus and fate, The Eye sees All who dare to pass through Lava Fall's Gate!!

Erica Fareio



"Eye of Odin" by Erica Fareio

Cooler Research— An Evaluation of A Damp Towel Cooler Cover

INTRODUCTION

COOLERS OR “ICE CHESTS” are commonly used to store food and beverages when electricity is not available. Refrigerated storage helps prevent sickness due to foodborne microorganisms. The National Park Service “2016 Commercial Operating Requirement” states that commercial operators must keep “potentially hazardous” food at or below 45 degrees Fahrenheit (7.2 degrees Celsius). (Reference 1) This fourth Cooler Research article evaluates the performance of a cooler containing frozen water bottles when covered with a wet towel.

METHODS AND MATERIALS

The experimental setup and protocol was described in a previous article (Reference 2) and remains the same. Room temperature was continuously monitored and maintained at 107.2 degrees Fahrenheit (41.8 degrees Celsius) with a standard deviation of 0.09 degrees Fahrenheit (0.05 degrees Celsius) over a typical five day run.

24.0 kilograms of ice were used in each cooler, 47 percent of the manufacturers stated capacity of 113 pounds. The bottle ice was formed in 12 two-liter soft drink bottles, each filled with two liters water. Experiments were initiated by removing the ice from a freezer, loading it immediately into coolers and closing the coolers. Each cooler lid was held down using two NRS nine-foot tie-down straps around the lid and cooler.

The test cooler had the top and sides covered with a snug fitting bag made of sewn together Terrycloth towels. The bottom of the cooler was not covered. The bag was kept wet by periodically irrigating the towel at the top of the cooler. Excess water was recaptured and returned to the source reservoir at the bottom of the test chamber. A large de-humidifier was added to the test chamber in order to promote evaporation. Relative Humidity was monitored and held to 35 percent or less.

RESULTS

The results for each cooler are described below and the data presented in graphs. The temperature at the Bottom, Mid-Low and High sensors is plotted versus the hours since closing the cooler. For both coolers there is an initial period (Phase 1) of approximately ten hours when the freezer temperature ice is warming up. The header of the graph identifies the vertical position of each sensor in the cooler: (High, Mid-Low,

Bottom). A red dotted horizontal line shows the Park Service upper limits for Commercial Operators. A blue dotted horizontal line shows the freezing point of water. In the graphs and summary table, we included the data for Drained versus Undrained Blocks from our previous article (References 2 & 3) for comparison.

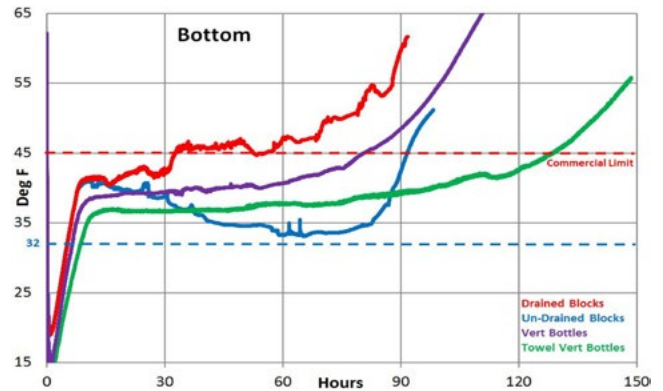


Figure 1.

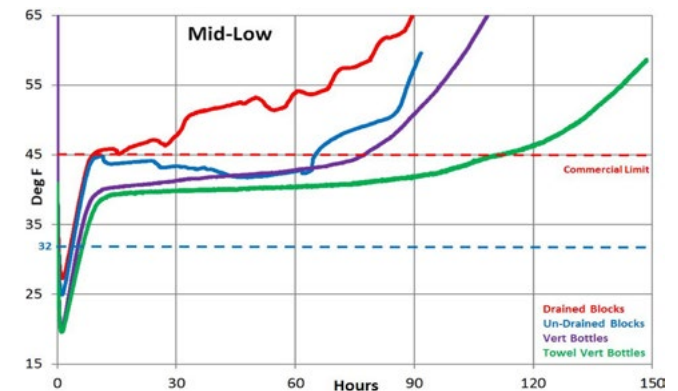


Figure 2.

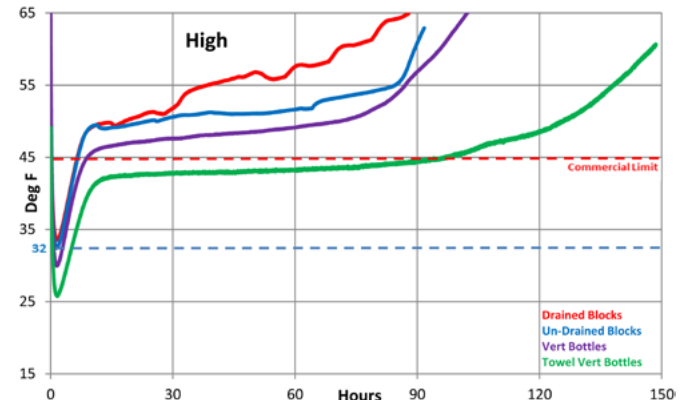


Figure 3.

	Drained Blocks	Un-Drained Blocks	Vertical Bottles	Towel Vertical Bottles
Sensor Location	Hours below Commercial Limit	Hours below Commercial Limit	Hours below Commercial Limit	Hours below Commercial Limit
High	~7	~7	9	96
Mid-Low	9	65	77.3	111
Bottom	32.5	91.6	80.6	128

Bottom: The results for the temperature at the Bottom are plotted in Figure 1. The temperature stays below the Commercial Operators Limit of 45 degrees Fahrenheit for 28 hours for the Towel Vertical Bottles.

Mid-Low: The results for the Mid-Low temperature are plotted in Figure 2. The temperature stays below the Commercial Operators Limit of 45 degrees Fahrenheit for 111 hours for the Towel Vertical Bottles.

High: The results for the High temperature are plotted in Figure 3. The temperature stays below the Commercial Operators Limit of 45 degrees Fahrenheit for 96 hours for the Towel Vertical Bottles.

DISCUSSION

The Table above summarizes the results.

In order to discuss the mechanism and effects of using a wet towel to enhance the performance of a Cooler, we need to define a few terms.

When Coolers are exposed to high temperatures, energy is transferred from the high external temperature to the lower internal temperature of the Cooler. This transfer of energy is called Heat and is measured in calories. One calorie is the amount of energy transfer (Heat) required to raise the temperature of cubic centimeter of water by one degree Celsius. It takes eighty calories of Heat to melt one gram of ice. And it takes 540 calories to evaporate one gram of water at 100 degrees Celsius and convert it to one gram of water vapor.

Temperature is a measure of the average Kinetic Energy of the molecules of a body, such as the air surrounding a Cooler or the air inside. Since Temperature is an average, some of the molecules are more energetic than the average and some are less energetic.

When we place a wet towel around a Cooler, we are exposing water to the surrounding air. The more energetic molecules in the water will have sufficient energy to convert into water vapor. For each gram of water that evaporates, 540 calories of heat are removed from the towel and transferred into the air.

The drier the air, the more water vapor it can hold and the more rapidly water will evaporate. The more rapidly the water evaporates, the more heat that is transferred into the air and the less heat that is available to be transferred into the Cooler to melt the ice and increase the internal temperature.

In our testing, we were unable to get the Relative Humidity of our test chamber as low as that found in most of the Southwest United States. Were we able to accomplish that, our results would have shown even more improvement in cooling performance.

CONCLUSION

The results of this study show that a wet towel draped over a cooler significantly enhances Cooler performance at all three test levels for the entire test run.

This concludes our initial investigations into various ice strategies. Subsequent work will focus on measuring the performance differences between various Cooler brands.

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ACKNOWLEDGEMENTS:

The authors wish to thank Wrenchman, Inc. for providing facilities, equipment and support. Much of this work was inspired and guided by Dr. Rufus Lumry of the University of Minnesota Laboratory for BioPhysical Chemistry. Dr Lumry was one of the world's leading authorities on the physical properties of water.

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Andy Hall Found His Home In The Arizona Territory

ANDY HALL BURST ONTO the scene of American History when he joined the 1869 John Wesley Powell Expedition. The stories of this expedition and of his untimely death at the hands of robbers are well-documented facts, but what about the other years of Andy's life? More importantly, why is he lying somewhere in an unmarked grave?

With my reading glasses firmly in place, pen and paper in hand, and plenty of research experience under my belt, I embarked on a journey to find Andy Hall. After all, he is my third great uncle and a family legend who, at the very least, deserves to have a marked grave. While peeling back the layers of time and digging through old records I discovered something truly amazing. Andy's life story firmly places him in many layers of American History.

Born in Roxburghshire, Scotland during the Highland Potato Famine years, Andy's family and neighbors found themselves in an area of high education and dwindling jobs.

Emigration to America provided a possible answer to an unknown future in Scotland. Many neighbors and family members began to leave this once secure area of southern Scotland and settled in Stark County, Illinois. After Andy's father passed away, Andy's mother, with her three children in tow, followed her family and neighbors toward a hope and vision that America offered.

Andy was an American immigrant by age seven and his youth was part of a Scottish settlement in Illinois. This community possessed a strong abolitionist view, actively participated as a stop on the Underground Railroad, and played host to Abraham Lincoln as

he campaigned for Senator in 1858. Their Presbyterian church conducted worship services in Gaelic and this language undoubtedly remained a part of their everyday lives. Andy carried a heavy Scottish brogue throughout his life.

Andy was fearless and possessed a desire to find adventure. Many accounts have Andy leaving home at an age of sixteen years old or even younger; however, Andy stayed with his family throughout his childhood. It was not until after Andy was eighteen years old and his older brother returned home from the Civil War that he left home. He did not leave alone as his friend and cousin, Adam Turnbull left with him. No one knows for sure why Andy left. Possibly, he wanted to experience his own adventures just as his older brother had while fighting in the Civil War or he wanted



Andy Hall as a child.

to find his riches "Out West" just as his Uncle Henry Scott had as a 49er. Whatever the reason, leaving home was not a pleasant event. It is apparent from letters written by Andy that his family was angry that he had left home and was disobedient to his mother. This family tension left its mark on Andy after he and Adam joined on as drivers for a wagon train headed to Fort Laramie, Dakota Territory.

Andy settled in working as a ranch hand just outside of Fort Laramie and subsequently became part of that American frontier stock that forged a life in the early days of the American West. He found the adventure he sought living in this territory during Red Cloud's War. Andy survived skirmishes with Native American Indians, spent long lonely days and nights herding livestock, and had very little money and resources for survival. Adam soon threw in his towel and returned to Illinois. Demonstrating his strong resolve, Andy stayed behind. His letters home express his love for family, his forgiveness of their poor treatment toward him when he left, and the underlying theme of returning home when he had something to show for his life in the west. These letters demonstrate Andy desperately wanting to prove himself and be a success. Cutting his losses and returning home was not an option.

In his quest for survival, adventure, and riches, Andy was always in the midst of historic events. Not only was he a witness to and a participant in the Indian Wars of the Dakota Territory and the Sioux Treaty of 1868, he wintered one season in Browns Hole, Utah Territory. Browns Hole was the target of many cattle rustlers and bandits as they played out their thieving ways or simply hid out from the law. I often find myself wondering about the company Andy kept and the individuals he may have encountered.

The westward railroad expansion and the Union Pacific Railroad eventually provided Andy with a job hauling lumber on the Green River using his own handmade boat. It was during this time that John Wesley Powell took notice of this young, boasting, storytelling, Scottish lad. Was it Andy's knowledge of the region, his survival skills and ingenuity, or merely encountering a fellow Illinoisan that led Powell to sign Andy up as the tenth and youngest member of the 1869 Powell Expedition? No one really knows. In the end, it transplanted Andy from the Northern Territories into the Arizona Territory.

After his adventure down the Colorado River through the Grand Canyon, Andy roamed the Arizona Territory for a few years still searching for riches. He continued to write letters home speaking of his



Andy Hall, post 1870.

return one day with earnings so substantial they would support him for the remainder of his days. After the death of his mother in 1873 and his two siblings moving on with their own lives, Andy no longer had a home in which to return.

Andy's life was oftentimes lonely; however, his frontiersman courage and roaming ways eventually led him to a home and friends in the Arizona Territory. Andy began to appear in local newspapers, becoming part of the Arizona Territory and its people. He participated in local events and maintained a variety of city jobs in Florence. Wells Fargo opened stations in the area and Andy began working as a messenger for their routes in the

territory. While maintaining a job with Wells Fargo, he also served as constable of Florence. Being a close friend of Sheriff Pete Gabriel, Andy acted as his deputy and was well liked and respected in the area.

Unfortunately, the very characteristics that brought Andy through the Northern Territories, the Powell Expedition, and into the Arizona Territory became his demise. It was Andy's daring bravery and willingness to go out in pursuit of robbers that placed him directly into the hands of his murderers on August 20, 1882. On this day Andy became the first Wells Fargo messenger killed in the line of duty in the Arizona Territory. Andy is buried in an unmarked grave in section four of the Old Globe Cemetery located in Globe, Arizona. His life was short but well lived.

Andy's life is like a thread woven into the fabric of American history. Andy did not find something tangible to take home and prove whatever it was he set out to prove. However, if he could look back on his life now, he would see that he did leave his mark on the history of this country, and more importantly, he would see that his family is proud.

Becky Stephens

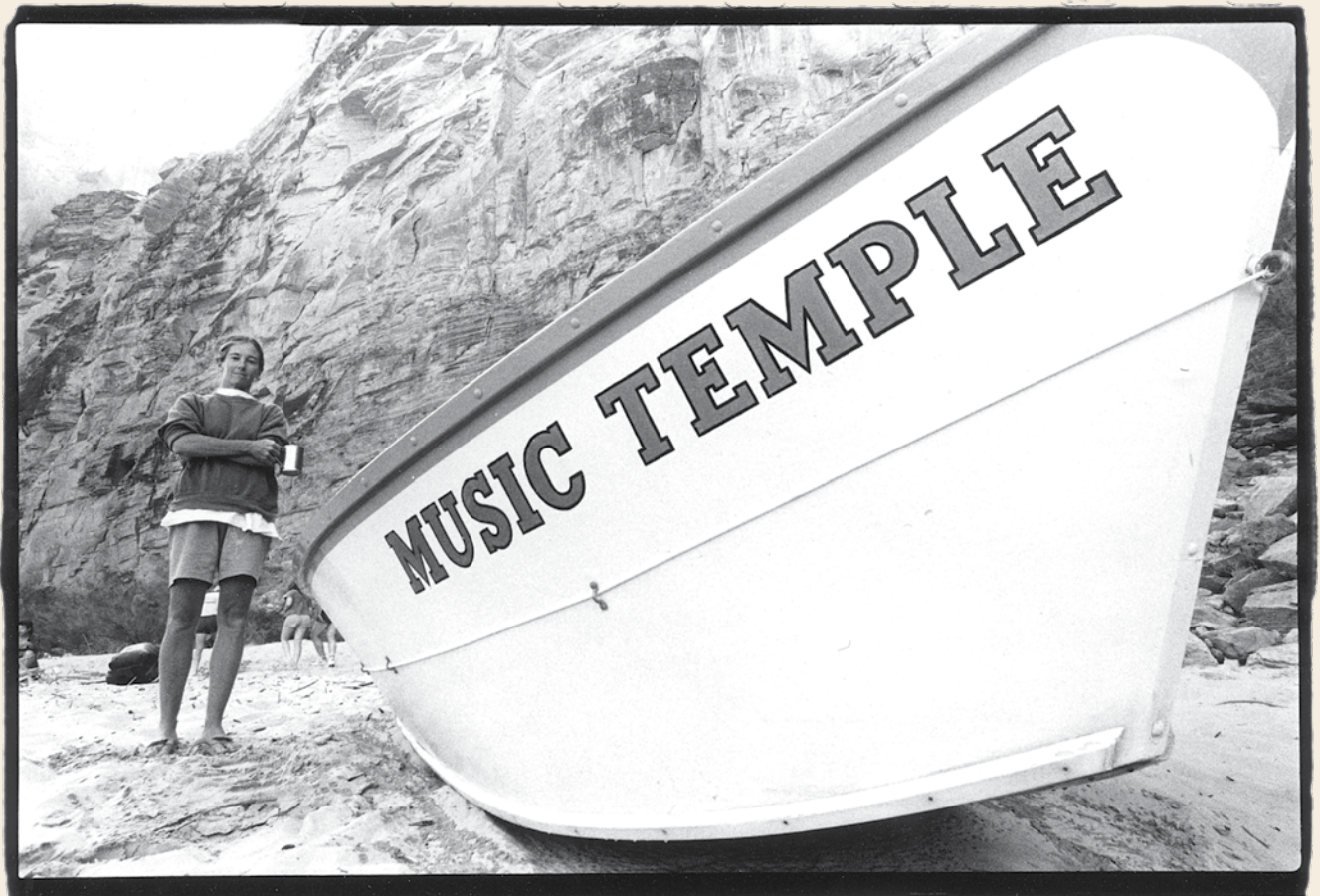


Photo: Dugald Bremner, courtesy of Ellen Tibbetts

Ellen Tibbetts '90

Ellen Tibbetts

MARY WILLIAMS: Where did it all start? Where'd you grow up?

ELLEN TIBBETTS: Well, I grew up in—I was born in Virginia, but my family moved to Madison, Wisconsin, when I was two, so I really grew up in Wisconsin. In Virginia, my dad was a Labor Representative for the Textile Workers Union at the Dan River Mill in Danville. In Madison he was an instructor, later on a professor, with the School for Workers at the University of Wisconsin.

WILLIAMS: What's the School for Workers?

TIBBETTS: The School for Workers provides labor education to union members. So my dad would teach night classes, weekend institutes, and training programs at the uw extension campuses around the state. My mom was mostly our mom, but she also taught fifth grade. Both of my parents were (are) talented, creative people. My dad played the guitar, my mom played the mandolin. The music was mainly just for fun. Growing up we were used to singing

folk songs, labor songs, and hearing the music. My mom had grown up part of the time in New England and spent time in the White Mountains of New Hampshire. Maybe that's why I developed a feel for hiking.

We lived a couple of places, but most of the time was on the west side of Madison, which was really nice, and it was close to farms and fields and stuff like that. And so really, for me, the beginning of being outdoors or outside was when I got a horse, and that was when I was about ten years old. And before that, as kids we'd take riding lessons. There was a stable close by where you could ride a horse for an hour or something. And it was kind of a wreck of a place, but that's the place that eventually turned into a boarding stable, and that's where I boarded my horse. And it was within walking distance of our home. So I could leave the house and walk through the lower field and go up to the barn. A lot of things there needed fixing. The horses got out of the pasture a lot, and my dad would

fix fences. But it was all up to us kids to take care of the horses. To board a horse there, it was \$17 a month. And that meant it was your job to buy your own hay and grain, bring the horse in, turn the horse out. It was all up to the kids, and it was really great because we had this little community of mostly girls that had horses up there. We rode together, we sometimes took care of each other's horses.

WILLIAMS: Kind of had a gang.

TIBBETTS: Kind of had a gang. Really, I have to credit my parents, it did keep us out of trouble. We went up to feed the horses before school, at five in the morning, rain or shine, forty below zero, twenty below zero, broke the ice on the water trough, brought the horses in if they were cold, that kind of thing. And after school we couldn't get away soon enough to go up and be with them. So I think all through junior high and high school it was a really healthy environment, not only keeping us out of trouble, but we had our own little group of friends up there and it taught us responsibility—nobody else was going to take care of those horses except us.

So I had a horse, a white mare, her name was Sugar. And then I had her bred, [for \$40] which was a big deal, and then a year later raised this young colt, and was able to train him.

WILLIAMS: Wow. And how long did you have him?

TIBBETTS: Let's see, he was born in '64. That was when I was about twelve. I had him through college but never brought him out to Arizona. My sister, Dorothy, took care of them while I was gone. As a kid, I had lots of books on training, riding, horsemanship, etc. I was a member of 4H. I subscribed to *Western Horseman* magazine. So by the time—his name was

Buck—by the time Buck was three years old, I had done all this work with him on the ground—you know, walk, trot and canter on the longe line. I had gotten him used to the saddle. By the time I actually got on him, he was like, "Yeah, whatever."

We participated in local horse shows with help from my Mom and other parents. Our own stables put on a show every summer. It started out as just a kid thing, we got sponsors for the trophies, ribbons and payment for a judge and announcer, and each year it got bigger. After a year or two, there were horse trailers, and people we didn't even know coming from all over the state. My parents helped a lot with putting on that annual show. My dad made the flyer. My brother ran the Pepsi stand.

There are four of us [kids]. I am the second-oldest. So my sister, Mary, she had a horse first. Then I got a horse. And then Dorothy, who is six years younger than me got a horse. My brother, Steve, was not that interested in horses, but he had his own thing going on, which was music and a band.

And again, my parents were great and supportive, letting my brother's band play in our basement, but they had rules. They couldn't play past ten P.M., but on Saturdays, 10:30. Playing and practicing in the basement kept them from wandering and finding a not-so-safe place to practice.

WILLIAMS: And then he made his living as a musician, right?

TIBBETTS: And he grew up to be, and still is, a well-known musician. [Editors note: <https://stevetibbetts.com/>]

* * *

WILLIAMS: When you were young, did you always draw? Or how did your whole art thing begin?

TIBBETTS: Yeah, from the time I can remember I was really encouraged to draw, in fact all of us kids were. My dad would bring home stacks of paper, mimeograph paper, and it was plain paper and we could draw on it. We used to take these summer drives across the country back east to Vermont and New Hampshire, which is where my mother's family and my father's family both had summer homes—where my grandparents lived. And we'd take two or three days and drive in the station wagon—no air conditioning—and



to keep us occupied, my dad would tell us what to draw. He would think for a while and then come up with a word, a big word, and he'd say "OK I want you to draw an *onomonapia*." I would draw what I thought the word might look like. Well, the other one that comes to mind was a *thesaurus*. "How about if you draw a *thesaurus*?" Of course you'd say, "Well, what should I draw?" He'd think for a really long time, and then he'd come up with, "Well, you could draw a *parable*." And then another one I remember, was a *diphthong*. But anyway, I really latched on to the drawing. And then in grade school and high school I got good grades in art classes so at an early age it became an identity. Kids would ask me "Can you draw this? Can you draw that?" and I'd do it. So I had an ability, but also I think I just got a lot of encouragement.

As a kid, art classes and gym class were my best and favorite subjects. I could kick the ball, I could run fast. [By the way—fast forward to the river—Moqui never beat me running backwards! Moqui [Mark Johnson] could run backwards really fast. He had learned how from basketball practice, I think. He would challenge the gals on a river trip to a race on the beach. Him running backwards and us running the regular way, forwards. He beat a lot of people but I'm pretty sure he never beat me.] And everything else in school was interesting to me, but I wasn't...I don't think I was very good at taking tests, I was never a book reader. I liked books if they had pictures (laughter). And the rest of it, I was interested, but I just don't think I was...I wasn't labeled as a "smart" kid. I was just able to maintain a stable status throughout grade school, junior high, and high school by sort of having these two things I could do. I preferred sort of flying under the radar, like I didn't want to be, you know, too obvious. I wasn't outgoing, I was pretty reserved and shy as a kid.

WILLIAMS: So then when you got out of high school and you made your

way to Flagstaff, was it pretty obvious that art was the direction...sort of your focus?

TIBBETTS: Well, art was all I thought I could do, really. (laughter) And had I known something like an art school existed maybe I would have wanted to go there. I think my parents just wanted me to get a well-rounded education. And, I didn't have a lot of choices in terms of schools because I didn't have an excellent high school record...you know...

WILLIAMS: Like you weren't valedictorian?

TIBBETTS: Yeah, and so NAU (Northern Arizona University) was a pretty good fit. (laughter) And I stumbled on to a great ceramics program there, just kind of by accident.

* * *

I met Ellen Tibbetts in the mid-1980s in Hurricane, Utah and was fortunate to have done a number of Grand Canyon trips with her over a span of ten years.

What can I say? She is a boating mentor, an art inspiration, and one of the wittiest people I know. Her collector-worthy illustrations have graced many a cover of the illustrious "Hibernacle News" (A Grand Canyon Dories-centric publication produced on a semi- or not-so-semi regular basis since 1979). Her ability to not only render the lines of boats, but capture their character, is astonishing.

Ellen's accomplishments as a Grand Canyon hiker, boater, and as a studio ceramic artist (etibbettsart.com) are extraordinary, but as one who prefers to "fly under the radar," she's the last person to tell you about it. Her kindness, skills, and creative humor are well appreciated by those lucky enough to find themselves in her orbit. As such, it was great fun to conduct these "interviews" with her in June and July of 2019.

—MARY WILLIAMS

* * *



Illustration for the Grand Canyon Historic Boat Project's Masquerade Ball, 2004

TIBBETTS: I always wanted to go west. Another thing our family did was ski a lot. I mean, to us it was skiing a lot. To people who lived in the West it probably wasn't a lot, because we just had little... you know, we didn't have big mountains in Wisconsin, but we would go up north

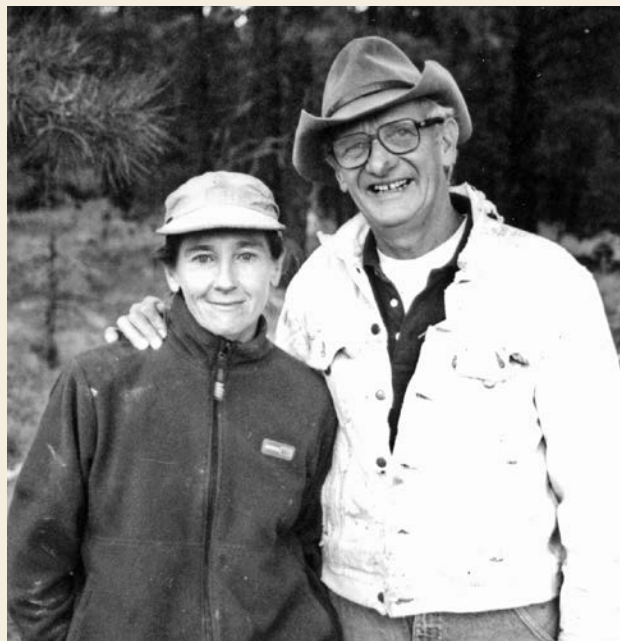
to Northern Wisconsin or Michigan and ski for the weekend, a few times a year. And then as we got older, we would start taking trips to Colorado just once a year. That was really a big deal for us, the real mountains... I mean, we could all ski, but we never got to be gnarly skiers like we kind of really dreamed of. (laughter) And my dad and mom were both really big on lessons, so every time we would do one of these trips, we would all take a lesson and practice our stem turns and stuff. So I really had this desire to go west. I remember reading about this really neat school, Prescott College. I thought wow, I want to go there. But my parents didn't think that would be such a good idea. And they were probably right. I just thought the West was cool—you know, horses, skiing, wide-open spaces. It was sort of a romantic fantasy. When I was a junior in high school my mom and I went to visit several schools in the West. When we visited NAU, we drove through Sedona. I had never seen anything like it. The Red rocks, the cactus, I even took some cactus home in my suitcase—bad idea—but I just had never seen anything like it other than in the movies. And so yeah, I ended up going to NAU. I went there and majored in art

WILLIAMS: Was ceramics—I mean, that became your main focus, but was it in the beginning, or how did that...?

TIBBETTS: No. I had never taken a ceramics class, we didn't have it offered in high school. I just thought art was drawing and painting. So I took drawing and painting classes and then my second year was when I took a ceramics class. Or maybe it was the end of my first year, and that's when I met Don Bendel who was a new teacher there, and he had come from Wisconsin too, so we had this connection. But he also was just a really good teacher, a good guy. We just really...right away he was comfortable to be around. He was also real different than... You know, NAU is was a pretty conservative school, so everything had been the same for a long time. But when he came in, he started showing us how to build kilns, plumb gas lines...if there was anything we wanted to do, he would let us figure it out. And he just really turned us loose and showed us...He brought in all kinds of great artists to do workshops. He was very motivating, you know.

* * *

TIBBETTS: And then the other thing with NAU was I joined the hiking club. Skiing was too expensive, there was no way I was going to go skiing. I remember going to the ski club [meeting], and everybody had these fancy clothes and make-up, and they all looked like



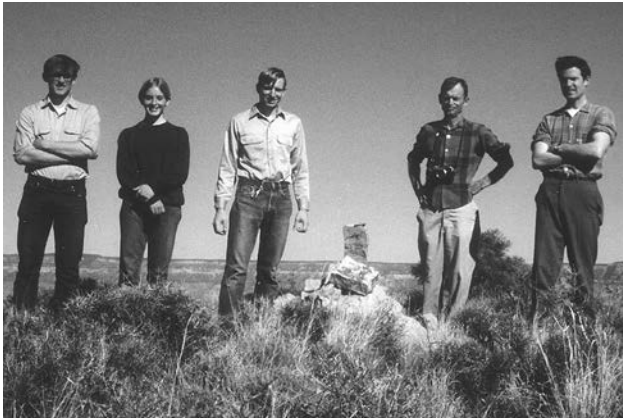
With Don Bendel, 2000. Photo: Knut Macormick

they were in a sorority or fraternity, and I just did not fit. But the hiking club was a really good fit. When I went to a hiking club meeting for the first time, the President and Vice President of the club had been missing in the Grand Canyon for several days. (See *Susan Billingsley's interview in BQR 20:3, Summer 2007*) When I heard that, I knew this is the club for me!

And that was another thing. I'm not sure how I even got through school, between hiking and pretty much living in the ceramics studio. Because the hiking club, we would organize our classes so that we could take off on Friday. You'd schedule your classes so all you had was, "Oh, just got a lab," and you could do something that you could either skip, or you didn't have to do. And then we just disappeared for three days, and it was always in the Grand Canyon. There was a core group of us that really... We didn't want to go anywhere else, we just wanted to go in the canyon. And several of those people, George Billingsley being one of them, and Al Doty, Bob Dye, and Jim Sears, were geologists, or studying geology, so they wanted to go somewhere where there was a fault, or there was some formation they wanted to look at, or a spring or a route they wanted to explore.

WILLIAMS: So they weren't interested in the Bright Angel Trail or the South Kaibab, particularly.

TIBBETTS: No. We did a lot of off-trail hiking, and even back then in the early seventies, there *weren't* a lot of people hiking. It wasn't a thing, like it is now. In fact, I don't even think in the beginning we *needed* permits. Then they started having to get a permit, and that was always a big hassle. Or we'd go anyway,



Summit of Pollux Temple, 1970. From left, Jim Sears, Ellen Tibbetts, Al Doty, Harvey Butchart, and Bob Packard. Photo: Al Doty

and then we'd say, "Well, we don't know where our permit is. Maybe it got wet." (laughter) But that was the way it was. But yeah, usually it was an idea like, "Well, let's see if we can get down... Instead of going down the Hermit Trail, let's see if we can get out Hermit Canyon." They'd look at maps and they'd go, "Maybe we can get through the Redwall here. Let's go check it out." Or, "Well, we know we can get through the Redwall, can we get through the Coconino?" We were never really interested in climbing with ropes and protection. If we couldn't just climb a section easily or



Climbing Cheop's Pyramid. Photo: Al Doty

scramble up through we didn't do it. Sometimes we'd use a rope to haul up our packs or lower our packs but that was the extent of using ropes. Also, Harvey Butchart was a big part of our hiking club. He didn't want to be the advisor anymore, but he still would come to all the meetings and tell us what he had been up to. And sometimes we'd be inspired by what he had found out, and vice versa. Like we'd say, "Well, we were over here, and we were looking at this," and then *he'd* go there. So he was part of all that too.

WILLIAMS: So were you mostly hiking *down* to the river, or were you also doing buttes?

TIBBETTS: We were climbing some buttes, yeah.

WILLIAMS: Were there any particularly epic or harrowing...?

TIBBETTS: I can't remember too many hikes that I was on where there was trouble. We had to bivouac one time while contouring on top of the Redwall. Was it Vishnu? I think it was, we were coming back to our packs after climbing it and it got dark. We didn't want to fall off the Redwall, so we built a fire and waited for morning.

Another time, on a hike to Blue Springs, Becky, a gal in our group, took a bad fall near the bottom of the trail. She fell about fifty feet down a dry waterfall and landed feet first. We were right down at the bottom of the trail so we were able to carry her to a better spot, camp and try to figure things out. Her legs and feet were in bad shape. She had just taken a first aid course, so she was able to coach us on what to do. We splinted and stabilized her legs. George, Bob Dye and a couple others went back out and up the trail that next morning. They had a helicopter in by that afternoon. So that was quite a learning experience.

We also did some things that we shouldn't have done, but we were just lucky to not get in trouble. Jim Sears, Bob Dye and I had hiked down to Hance rapid. We wanted to see the asbestos mine on the other side of the river. We hiked way upstream and blew up our air mattresses. Jim's air mattress wasn't holding air well, so he decided not to go across. Bob and I blew up our air mattresses and paddled across above the rapid. It gives me chills now to just think about what we did. We had no idea of the power of the river back then. We didn't really have time to go to the asbestos mines so we just walked back upstream and paddled back across. We were a little bit wet and cold but fine and lucky that nothing happened.

* * *

WILLIAMS: So after the hiking club, when you got out of NAU, where did you go next?



Pearce Ferry take out, 1972. Ken Stevens, Bill Reitfield, Ellen Tibbetts, Susan Varin (Billingsley), Jan Jensen, Ed Anderson, Debra Astel, George Billingsley, Bob Dye. Photo courtesy of Ellen Tibbetts

TIBBETTS: Well, it started because of the hiking club. George Billingsley started working for Grand Canyon Expeditions. It was spring break, I think, at NAU, and George arranged a way for us...He borrowed some rafts from GCE so a group of us from the hiking club went from Diamond Creek to the lake and took two weeks. We hiked up a lot of side canyons. Surprise Canyon and many of the canyons down on the lake.

WILLIAMS: It was probably quieter down there then.

TIBBETTS: Oh yeah, there was nothin', there was nobody. So that was, I think, my very first river trip. Except before that we had done the San Juan in inner tubes. We [hiking club] wanted to see the anticline that was down there along the river.

WILLIAMS: I remember Susan [Billingsley] saying how much they used to do in inner tubes.

TIBBETTS: That would have been like even maybe a year or two before we went down from Diamond Creek. We were very naive, or whatever you want to call it. We didn't have life jackets. So we didn't know much about river safety, obviously. I mean...I remember we sat on an air mattress on top of two inner tubes, and then we had a smaller inner tube we tied our packs to. No life jackets. And we tied the small inner tube to either our foot or to the bigger inner tube that we were sitting in. It was a little nuts! Yeah, so we were lucky, too—lucky in so many ways; probably lucky with some of the “climbing” we did, and some of our route-finding we did hiking in the Canyon.

So anyway, we did that lake trip from Diamond down. And then I think it was the spring of probably 1973—that would have been maybe my junior year in college—when I went down with George as a swamper. He was working for Grand Canyon Expeditions. So that

was my first all-the-way-through river trip.

And then in the fall, beginning of my senior year, George and Susan Billingsley put together a San Juan trip, and I went on that. They also invited Kenton Grua, Reagan Dale was on it, and O'Connor [Dale]. And so that's where I met Reagan, Kenton, and O'Connor. And so after that San Juan trip, Kenton drove me back to Flagstaff in his vw bus, and we just ended up staying together from that point on. So he stayed with me in Flagstaff while I was finishing school. That winter we did a Christmas river trip in the Canyon. Kenton had a ten-man raft that he had gotten from his dad. I mean, the thing was really heavy, it was an old World War II raft, with a blow up bumper tube around the outside of the boat. Anyway, Kenton had really spiffed the boat up and built a nice frame for it. And so Kenton, myself, and Kenton's brother Cliff, went down over Christmas, middle of the winter—by ourselves!

WILLIAMS: A one-boat trip?

TIBBETTS: Yes! I'm not sure how we got permission, it wasn't a private trip, I don't think. I don't remember being checked out when we left. Maybe he had asked Martin[Litton]. Martin would call the Park and get permission for us to go. But when I think back that we did that trip alone...especially with Kenton being the only one who knew anything about the river. I was 22, he was 23, Cliff was probably nineteen or twenty. And really, Cliff and I were pretty clueless.

WILLIAMS: Passengers.

TIBBETTS: Yeah, we were, we were passengers. The water was way low I think. We scouted a lot. Horn Creek was, I think we did *right* of the right to left run—you know, the old ghost run thing. Deubendorf

was a rock pile. Cliff and I were just, “Oh, this is fun!” When I think back now, Kenton had a lot of guts. He was confident. I don’t know what to say about him—to do that, knowing the risks...

WILLIAMS: Had he been working for GCE prior to that? And then Martin?

TIBBETTS: He had already had quite a river career. He, I think, started with Hatch when he was eighteen or nineteen maybe. He had worked for Hatch a couple of years, then he had worked for GCE for a couple of years. And then he had worked for Martin. When I met him, he had worked for Martin for maybe a year. So, you know, he had a good five years, probably, of Grand Canyon river running experience, and he *did* know the canyon, and he knew the runs, and he knew the rapids. But still, going alone! I know over the years lots of people have done solo trips, but I still think its a pretty adventurous thing to do.

WILLIAMS: In the middle of the winter!

TIBBETTS: In the middle of the winter! And it was cold. And we didn’t have all that fancy, you know, polypropylene, capeline or anything. Rain gear were rubber suits we got at Yellow Front or somewhere. We had wool sweaters and I think we might have had—I don’t even know if we had wet suit booties. It was a long trip, too. We did have a lot of saunas, I remember that. Kenton—you know how he’d get so wound up about stuff—he would just build this giant fire and... how did we used to do it? Oh yeah, put rocks in the fire, they’d get hotter than hell. Then you put the rocks in a metal bucket. While the rocks are getting hot in the fire, you’re building a tent with a tarp—and then you dig a hole inside the tent. Fill the metal bucket up with hot rocks and put the hot rocks in the bucket in the hole. Then you go sit in the tent and you sprinkle a little bit of water on the hot rocks. And it would be instant sauna! Hot and humid. That was the only way we could take a bath. I mean, it was so cold. And so yeah, we got really hot, and then we’d go in the river, rinse off. I especially remember doing it at Stone Creek on that huge beach below Duebendorf. And we didn’t see anybody else either. Back then there just were not trips on the water during the winter. There was nobody. And that’s why it was neat.

WILLIAMS: At the same time, if you’d gotten in trouble, nobody’s gonna come by for months.

TIBBETTS: No. No, we’d have been in big trouble being alone.

And then we did another training trip in the spring. I think I had my senior show in April, and we did this next training trip in May—something like that—and that’s where I first met Kenly [Weills]. That would have been the spring of ’74, and it was Kenton



1974. Photo: Rudi Petschek

and Reagan and Steve Sharp, who was Kenton’s good friend from Vernal, Utah. I did quite a bit of rowing on that trip. Kenton was letting me row lots of stuff and coaching me. And then after that spring training trip, I left Flagstaff. I graduated—left Flagstaff with Kenton, took all my stuff, and we drove up to Hurricane, Utah. We arrived in the morning, and I met all these river people, all these amazing women who were cooks: Sabina [Gnittke], Kenly I already knew, Jane [Whalen], Carol Starling. And they were just the best gals. They were so warm and welcoming. It just felt real good. And the boathouse, and everybody living in their van or an apartment upstairs, it was a little community. Mrs. Lee lived next door. She had this amazing vegetable garden in the back. There were fruit trees, pecan trees, Hurricane was a paradise. So that summer the idea was that I would be in Hurricane while Kenton did a full season on the river. But, Martin made it possible for me to go on some trips—you know, like he did for so many people. He enjoyed that. I was able to go along on a few trips that summer as a cooks’ assistant.

Back in those days we would do a training trip or two in the winter, and the whole idea was dories are harder to row because you can’t hit anything, we need to practice and know the runs at all water levels, so we need to train. Getting a dory through the Canyon without hitting or flipping was not always easy, so training and being warmed up for the season felt like a good idea. We didn’t take dories on the training trips, we took our little rafts. I know Reagan had a seven-man; Kenton had his ten-man. I think Bego

[George Gerhart] and Ote [Dale] had a seven-man and a Yampa. And we'd spend a lot of time just making the boat frames fit and look beautiful. Rowing dories influenced the way we outfitted our rafts. Everything painted, oars, oarlocks set up perfectly, we had a lot of pride in our little rafts. We all were kind of in couples or groups, and we'd all bring our own food and our own fire pan, like a garbage can lid. And we'd still camp together, and we'd just pool our resources sometimes, or sometimes we wouldn't. It wouldn't really matter. I remember doing one training trip where I think all we ate was granola and grilled cheese sandwiches. Trips back then seemed a lot simpler. You know, we didn't have coolers. So every year we would do a couple of these training trips and of course the other companies were going, "What?!"

WILLIAMS: "Why do they need to train so much?!"

TIBBETTS: Yeah. I mean, after a couple of years of this, they were like, "Wait a minute." And I remember even private trips were complaining, going, "What do you mean? These commercial guides get to do whatever they want, whenever they want? That ain't right!" But it took a couple years for that to sort of start...

WILLIAMS: For them to catch on!

TIBBETTS: For the river community to kind of go, you know...

WILLIAMS: "Aren't they trained by now?!"

TIBBETTS: It went along with our kind of dory elitist reputation. And I was thinking, "Well, yeah, they're right, you know. But still, we need to be familiar with this low water because our boats are different." You know? So then the training trips morphed into "clean up" trips. Helping to clean up beaches. Before we used fire pans and eventually gas for cooking, in the early '70s everyone used a common fire pit. So there were these huge areas of old charcoal fire pits. So we'd spend a few days at some of these camps and really clean things up. But we also trained and managed to have some serious adventures.

What else was I saying? Oh yeah, so it was with these training trips that I got more and more experience rowing. I mean, I liked to row, and Kenton was really, "Okay, you row everything." He set up the frame so it would fit me, he set everything up so that I could have the very best advantage and leverage. But he really, I could say encouraged me, but he also kind of really pushed. I was pretty apprehensive. You know, I wanted to, but I was a little bit scared about it. But then every time I would have a successful run, I'd go, "Well, you know, maybe I can do this." So we did a lot of training together—he, being behind me, going, "No! Not there! Pull! Pull hard! Right...I mean

left!" We did get into some trouble just because we weren't communicating completely. And finally I figured out that I had to have my own boat and make my own mistakes. I had enough experience by then that I really *did* know where to go, I just needed more confidence. Kenton taught me so much about rowing; how to use the current, angles, everything to the best advantage. And it was pretty important being a small person. So we started doing training trips together, but I would have my own boat. And then, somewhere in the late '70s, on commercial trips we started carrying the human waste out. So with the new rule of having to carry everything out, we had to have a raft, or baggage boat, along on every trip. And so Kenton had this brilliant idea—I think it was mostly his idea—about how I could go on all the trips. I would get my own raft and just row it as the baggage boat all summer long.

WILLIAMS: Were you cooking at the same time, or not really?

TIBBETTS: Maybe I cooked and rowed at the same



1980. Photo: John Blaustein

time a couple of times but I think once I made the change to rowing the baggage boat on Grand Canyon trips that's all I wanted to do.

WILLIAMS: Okay.

TIBBETTS: So it probably would have been '78 or something. And I also rowed up on the Green River for a couple seasons. And up there I rowed dories.

WILLIAMS: Oh, did Martin have a permit up there?

TIBBETTS: Yeah.

WILLIAMS: Okay, so you were doing both—the raft in Grand Canyon and dories up on the Green?

TIBBETTS: Yeah, at the same time. I would have rowed dories on the Green in '76 and '77, but the season was short. I think we did about four trips in June. Then we would go back down to Hurricane and do trips the rest of the season in the Canyon. Probably around '78 was when I started rowing the baggage boat on commercial trips in the canyon all the time and that's when Kenton and I stopped doing the Green. And so around that time I bought a sixteen-foot Maravia. And Kenton built this really cool frame. He went over to Dean Waterman's and they bent this aluminum tubing and made it fit perfectly over the sides and into the boat with the floor attached. The thwarts were taken out and the frame, because of the way it fit so well inside, kept the boat more rigid and less bendable. The frame carried five or six rocket boxes in front, and five or six in the back. It was perfect for carrying the poop out. And the floor being attached wasn't just hanging from the frame, like raft frames used to be.

WILLIAMS: It was part of the frame.

TIBBETTS: Yeah, it was part of the frame. And so you could stand up on something solid, rather than a hanging, floating floor.

WILLIAMS: Wow. So then at what point did you find yourself rowing your first commercial [Grand Canyon] trip?

TIBBETTS: It was sort of building up steam, you know, like we've talked about before. Curt Chang, (Northwest Dories manager) in Idaho, already had women rowing dories up there. Curt liked having women on the crew, he said he thought it sort of mellowed out the guys, balanced the crew and made for a better trip. And don't get me wrong, Martin also wanted women on the crew, that's why he liked having cooks. But I don't think it ever occurred to him that women might one day row dories in the Grand Canyon.

WILLIAMS: And you were rowing on the Green.

TIBBETTS: And I had been rowing dories on the Green. AZRA I think was still ARTA back then, but they had women rowing. Liz Hymans was rowing for OARS. Ote had done some trips with Moki Mack.

Sue Bassett was rowing for Wilderness World, Susan Billingsley was motoring for GCE... There just hadn't been officially a woman rowing dories in the Grand Canyon, except for all the times the cooks had filled in for an injured boatman or some other thing that came up. So it wasn't like it was an overnight thing—but it was bound to happen and it was just that I was at the right place at the right time, and as ready as I would ever be. And so that's kind of how it happened.

WILLIAMS: And then how soon did Kenly get a boat after you? Was it the next season?

TIBBETTS: Yes, I think it was myself, and then Lori Long [Cooper], and then Kenly, and then there were others... Fritz... Fritz was in there too. Yeah, Kenly was shortly after me.

The question I think everybody had was, you know, dories are different, they tip over easier, you can't hit a rock with 'em. Rafts are generally more forgiving. And, could a smaller person—a woman—handle it. Rowing dories on the Green river was one thing, Idaho rivers also, but Grand Canyon? I didn't know, I wondered. But so many people were ready for it. Like I said, the cooks had been filling in for boatmen for years. So it just meant that taking that final step for a woman to row an entire trip commercially, it was like... It was like opening up Pandora's box or something. And so I just happened to be in the right place at the right time.

So it was the spring, 1980, they needed a boatman, like in two days. I think a couple of passengers had been added to the trip at the last minute. I ended up rowing the *Music Temple*, which had always been Mike Davis's boat, but he ended up rowing the *Mille Crag Bend* that summer so it all worked out okay. And I think it was Tuck [Weills] that said, "How about it?"

WILLIAMS: Tuck was the manager then?

TIBBETTS: Yeah, and by then maybe Jane was managing at that time too. And so that's what started it. It was probably good that it happened so fast so I couldn't worry too long and I couldn't change my mind. Kenton, of course, was on that trip. I had really good support, and the boatmen, I think really wanted me to succeed. They kept me in the pack. I'm sure I followed about two feet behind Kenton. They probably lightened my load. They were always so supportive. I don't think the dory boatmen ever felt threatened, like maybe at all, about women rowing.

WILLIAMS: Yeah. I never got that impression either.

TIBBETTS: Yeah. And so I think that summer I rowed four trips maybe—at least four trips, and I rowed 'em all in the *Music Temple*. I did flip twice that summer. I flipped in Hermit and Crystal—not in the same trip.

But I was able to deal with that, and get that out of the way. So that was the beginning of my rowing dories in the Canyon commercially.

WILLIAMS: And then how many years did you do that? When was your last?

TIBBETTS: My last river trip was '94. That was with you on that all-women's trip. You ran the paddleboat, is that right?

WILLIAMS: Oh yeah! I remember!

* * *

TIBBETTS: One thing I remember which was interesting was some of the reactions our passengers' had to women rowing—particularly me. I know there were two different kinds of people...they either did *not* want to ride with me, or they *really* wanted to ride with me. And the people that really wanted to ride with me were usually women—some of 'em—though some of 'em didn't think it looked right, and didn't want to ride with me; and then men who wanted to have what they thought was a fun ride, because they were sure I was gonna screw up, and that I'd go through some big hole or wave and they'd have a big ride. And then as usually happened, the days went by, and people would come to me and say, "Well, I really didn't think you could do it, but I'd like to ride with you," or whatever. And then there were the people that thought I was some kind of magician because I was small and I could still make the runs and they thought there was some weird magic I must have had. So then they *really* wanted to ride with me, because they thought they would be safe and I wouldn't ever make a mistake. And that was another problem, because I knew full well that at any moment we could be upside down, or smashing into the wall, or hit a rock or somethin'. I felt all eyes were on me (us) because we were women, and you really felt that you just could not afford to make a mistake, because everyone would think it's because you are a woman, so I didn't want to lose people's confidence. I don't know if women feel that way now. I mean, that would be something I would wonder about, is whether the women that are rowing these days, if they feel that pressure—but I know I did.

Oh, I remember another couple of things. I remember some passengers saying to me, "You're really doing a lot for the women's movement. You must be a women's libber. You must be doing this for the women's movement." And I remember telling them, "I didn't do anything. I've had all this support. The men on the crews support me, management supports me. It hasn't been me at all." And then I remember a couple

of women reminding me that...talking in terms of the women's movement, you have to go back in history and think about all the women—not just river running women—but women that fought for equality. And it *was* kind of something for me to remember that, yeah, we're all just sort of taking the next little baby step, and all these other people have stepped up before us. And so it's like going on the shoulders of the previous [women].

WILLIAMS: Yeah, exactly.

TIBBETTS: It just never really occurred to me. I didn't think that way. I didn't think of myself as...

WILLIAMS: As part of that.

TIBBETTS: Well, I didn't like the term "women's liberation." I didn't like the term of the "women's movement," even though it was kind of what we were doing. I didn't like that idea that we were out there *fighting* or something, because we weren't. Doors were opening. But the only reason those doors were opening was because of the women before us. And it's true. I realized I would never be doing what I was doing without the women before me that paved the way.

Anyway, and then the other thing was I think men passengers, I think they had a harder time, a little bit, with the women boatmen. I think they felt sort of weird that this small woman was running them around in a big boat through these big rapids and stuff. And I understand it, because normally men did that, not women.

I remember rowing the baggage boat with two guys riding with me, and they were really nice guys—definitely bigger than me and stronger than me and stuff. And I remember it was myself and Wren



1981. Photo: Rudi Petschek



Hermit. Photo: Unknown

and somebody else, and it was a really low water spring trip. We were in the slow water right above Nankoweap Rapid, and the wind was so bad that we just couldn't get to the rapid. We were getting blown around so much that we just—all we had to do was get to the top of the rapid, where there was more downstream current and we could stop pulling for a minute. So we were pulling into the wind, through the white caps, making very little progress, and these gusts would come up. I remember the three of us, and our boatloads of people, just getting blown sideways into an eddy right above the rapid. And then when the wind stopped or let up for just a minute, we all kind of, at the same time, would make a break for it, just trying to get back into the current. The three of us would pull out...and I remember the first boat—I don't know, it wasn't Wren, but somebody else—and he was able to stroke, stroke, stroke, stroke, and all of a sudden he made it to the top of Nankoweap Rapid, into the faster downstream current, and he's gone. The other two of us [Wren and I] got blasted back into the eddy. So again, when the wind let up, we make a break for it, just trying to pull back out in the current. And then Wren gets out there, and gets to the top of the rapid, and Wren goes on down, but I don't *quite* make it and get blown back into the eddy all by myself with these guys. I remember them saying, "Why don't you just let me give it a try?" And I just knew that I could not do that, not because...I knew they were stronger than me, I knew they were bigger than me, but I knew they couldn't row, and I knew they didn't know what an eddy was, and they didn't know what current was. They'd miss a stroke, and we'd lose tons of time and

tons of ground just if you missed one stroke. They didn't understand that it wasn't merely strength, but more importantly it was technique. I just had to say "You know, thanks, but I'm doin' okay." Because I was, I was fine. It's just what rowing in the wind is like. But they hated to see me work hard, I guess. And then finally I was able to pull out, catch the current and go down. But I just remember it was really painful for them to just sit there and watch me. Whereas if I'd been a guy, they probably wouldn't have cared. Well, they certainly wouldn't have offered, and they would have thought, "Well, I can't do any better than that."

I remember there was a German guy who had done several trips along with his friends with us, named Wolfgang. He liked riding up front and getting a big ride. I think we were camped above the gorge and whoever the trip leader was, was explaining how tomorrow was a big day, pay attention, and so on because the rapids would be bigger and more challenging than anything we'd seen yet. And I remember Wolfgang chuckling and saying (in a heavy German accent), "How could the rapids or this river be dangerous if they let a little girl row the boat?" At first I thought he was kidding, but he wasn't! That made me feel sad because I felt like my rowing the boat was diminishing the adventure and experience for him and maybe others.

And then another time, I remember one of the things over the years I really liked doing was smashing trash, and I was good at it, too. We could get all of the trash—glass, plastic, tin cans, everything into one or two #10 cans. And condense it so completely that it was a beautiful thing. I could make these



Hermit . Photo: Rudi Petschek

garbage cubes that I really think were almost as good as Kenton's and Rudy's, because I watched them and learned from them. You could get so much in that #10 can, and you could always get a little more in there. And then you'd hammer the edges down and it'd just be this really heavy garbage cube, it'd be perfect. And I remember doing it one morning, and these older men, or this one man in particular—just watching me and he said, "You know, it just hurts me to see you do that." And I was surprised but I think what he meant was, maybe it wasn't ladylike, or maybe it... He couldn't see how I would *want* to do that. I think it was, again, feeling like men do this thing, and women do that thing, and so I sort of felt—you know, I just felt sort of bad, that it was like bursting his bubble. I was infringing on his territory or doing something I shouldn't be doing. And so I could see how that could happen, that women, for a lot of men it was threatening that... You know, we didn't want to *be* men, and we didn't want to be just *like* men. We just wanted to...

WILLIAMS: Wanted to do the fun stuff.

TIBBETTS: We wanted to do the fun stuff. Right. Exactly.

WILLIAMS: Like making the ultimate garbage cube.

TIBBETTS: Exactly!

* * *

WILLIAMS: So what about 1983?

TIBBETTS: I'm so glad I was there to experience that high water. I doubt it will ever happen again. It was pretty intense. The '83 high water trip I was on, we left the Ferry at 60,000 [cfs]. At Granite it went up to

70,000. At Havasu it went up to 90,000. I really have to give credit to Reagan who led a very good trip. Every day we didn't know what was gonna happen. And he explained that to the passengers, who were great. He was really clear about how this was uncharted territory for us. I mean, we had our flip lines on every day. The boils, the eddy lines, just pulling in was epic. You had to pull in *way* above rapids to scout. And pulling in, sometimes there just weren't any eddies. You know, you were kind of speeding through the tops of the tamarisk trees, trying to get to shore *somewhere*. The whole character of the river was different. And it was hard to help each other, too, because if we were too close, we could get boiled together and hit each other. And if you left enough space between each other, within minutes you couldn't even see the other boat. So it was really every man for himself, or every boatload for themselves. You really had to realize that in a lot of ways you're on your own. But everyone was also looking out for each other.

WILLIAMS: What was it like [on June 23RD] when you got to Crystal, 'cuz it was at 70,000? I mean, how did you decide how to run, or did you run empty?

TIBBETTS: I think we ran empty. And you just got as close to shore as you could, which meant running over and close to submerged tamarisk trees. One tamarisk tree top was a good marker. And you just had to come in early... I mean it wasn't a difficult run, I don't remember it being difficult. It was just fast, and there was a lot of space but you wanted to be in there, you know. But the hole was horrendous. It was just like the biggest hole you've ever seen. The hole went two-thirds of the way across the river—it was just a wall of



1983. Photo: Rudi Petschek



1984. Photo: Rudi Petschek



1987 . Photo: Rudi Petschek

water from the left side of the river. It was big, so big. But it wasn't a technical run, you just had to power in and get as close to shore as you could without hitting any rocks or trees.

WILLIAMS: I remember hearing about trying to pull in at Bass [at 70,000 CFS]. Didn't you have a...

TIBBETTS: Yeah, everybody made the pull-in that day, except me. I made it into the eddy below. Mike Taggett unloaded his people, and then he came down in his boat, just to give me some support. And what we did was—because I still had all my passengers—we [the whole crew that had made the pull-in] lined my boat back along the shore in sort of this ripping current, as far as we could, so that we could unload my folks. Anyway, I got all my food out that we needed for camp, and then I floated back down to where the eddy was, and Mike and I tied our boats off so they were not gonna be bangin' into the shore or anything. And then we had to climb out of this little eddy. And it was kind of an exposed climb, and Tom Rambo was up there, belaying us. (laughter) And then the next day, [June 24TH] in the morning, when we were getting ready to leave, that was when we saw an upside-down motorboat float by with people on the bottom. But we couldn't get out fast enough to help right away. We were almost out, but couldn't really help 'em, and they were holding up "Need Help" cushions and stuff.

WILLIAMS: So people were on top of the upside-down...

TIBBETTS: Yeah. And they were saying stuff like, "We don't know where everybody is." So after this upside-down boat went by—I think Reagan, Mike Davis, those guys, got out as soon as they could and chased after it, but what it did was, it went around the corner and broached at 110-Mile on that corner.

WILLIAMS: On the right?

TIBBETTS: On the right, yeah. And so that was good, because they were there. By then I think they had accounted for everybody, but our trip helped radio for help... [EDITORS NOTE: Camped the next evening at Mile 136, on June 25TH, the trip watched as a stream of random river trip flotsam drifted by; life vests, ammo cans and other gear, followed later by a lone, empty, upside down Tour West motor-rig.]

TIBBETTS: And then Kenton, Wren, and Rudi came by on their speed trip.

WILLIAMS: And did you know that they had that planned?

TIBBETTS: Yeah, we knew they were gonna pass us somewhere. Wren had a big wound on his head that was taped up, the boat was damaged, they were in pretty low spirits. But they were rowin' hard, and that was somewhere above Kanab Creek. [June 26] All I remember them saying was, "We flipped in Crystal." Yeah, so they passed us.

There were places that were more difficult. A lot of stuff was washed out. House Rock was like a ruffle. Horn Creek was like, "Where's Horn Creek?" Hance you could go right down the middle. But it was also... you'd scout it and you'd think 'Oh, there's nothing here.' And then you'd get out there, and even though from shore it sort of looked like nothing was there, it still had this power that was really kind of mystical. You knew even though you didn't see anything, like any rocks, or waves, or holes, that might flip you, you just had the feel out there that it was so fast, that anything could happen. And if it wasn't always in the rapid, it could be at the bottom, on the eddy line, or in the tail waves 'cuz they'd just come out of nowhere. You'd be on an eddy line and some big



Regan Dale & Ellen Tibbetts, 1988. Photo: Dugald Bremner
Cline Library NAU.PH.2018.34.1.144.206



Kenly Weills & Ellen Tibbetts, 1987. Photo: Dugald Bremner
Cline Library NAU.PH.2018.34.1.144.286

thing would suck you down or shoot you up in the air or spin you around. So probably one of the trickiest spots was the Narrows above Deer Creek. That was just such a surprise. Even being prepared, you couldn't be prepared for how bizarre it was in there. It was just a bunch of water that didn't know where to go. Slamming into the walls. Also, the water was inconsistent. Like if you saw it doing something and you set up for it, all of a sudden it would stop. I don't really remember much about the Jewels...

WILLIAMS: Bedrock?

TIBBETTS: I don't even remember Bedrock. I mean, everything in its own way was kind of hairball, and we had our flip lines on every day, and you were just on it, every minute 'cuz the shore was just, boom, boom, going by. You were out there and instead of feeling like a river it felt like you were on an ocean of moving water. You know, the shore was really far away! (laughter) And we were going really fast! And yeah, you'd pull out and it was like "Bye." You could pull out, two seconds after someone else, and you never see 'em.

We ran Lava at 92,000. We scouted it from the left and, of course, again it was just a huge big wide river. The rapid went all the way down to Lower Lava. There was no calm stretch in between, it just fed right into Lower Lava. And again, it wasn't anything technical. It was just fast and big. Everything was big.

And the water stayed high for the next two or three seasons. I think the next summer it was 40,000 or 45,000 CFS consistently, and the summer after that, maybe even two summers, it was a solid 28,000 for the whole summer. Twenty-eight thousand was a pretty good stage except for Crystal. Lava was a steady left run—the old high water left run. We got pretty used to the high water.

* * *

WILLIAMS: Did you get your master's degree? Is that what you came back to school for?

TIBBETTS: Yeah. I went back in the fall of '84 and did a two-year program to get a master's degree in ceramics. And I really had this idea that I wanted to pursue more of an art career, and go from getting the master's degree, and then I would go somewhere and get an MFA. But I didn't do that. I finished my master's degree and went back to running the river. So I got my master's degree in '86, and I ended up continuing until '94, doing trips.

WILLIAMS: And then is that when you started teaching?

TIBBETTS: Yeah. Then I started teaching at NAU. Again, just this opportunity, right place at the right time. I think for several years towards the end of river running, I really was kind of looking for a way to make a transition but I just didn't know how to make that happen. I loved being down there. I think what's so addicting about being there is running with a group of people that you knew so well, and being there, and being in the best shape of your life. It's so addicting, and it's fun. But I also, just the pressure of keeping people safe, and the responsibility of the rapids, the big water, making a mistake... It was a lot of responsibility to be down there, I felt. So that was kind of getting to me. And so again, I visited NAU a lot, the ceramics program, I knew people there. Don Bendel was still there. I had moved back to Flagstaff from Hurricane. And Paula Rice, who also taught ceramics at NAU, asked me if I would ever be interested in teaching in the summer. And I kind of right away



1988. Photo: Dugald Bremner, Cline Library NAU.PH.2018.34.1.144.221



1988. Photo: Rudi Petschek

said, “No, no.” And then I thought about it, and I think my ceramics friend said, “You know, I’d give my right arm to teach a summer class at NAU.” And I thought, “Huh, maybe I should think this over.” And sure enough, I went, “Maybe I should give this a go.” And I really think that over the years of river running I had gained confidence and learned a little bit about how to be with people, and how to pretend when you’re really nervous that everything’s okay. And I think that was what I needed for teaching too. I didn’t know how I was going to be the one standing up in front of all these people. But I think with my experience, being on the river with people I didn’t know, and people that you were kind of leading, it gave me the courage to give teaching a try.

WILLIAMS: And did you ever go back for another trip?

TIBBETTS: Nope.

WILLIAMS: Made a clean break?

TIBBETTS: Yeah, in ’94. That was sort of the end of my commercial river running career because then I stepped right into something to do in the summer which I really wanted to do—to get involved in art and ceramics again. Teaching a summer class is always a little more laid back and so I taught at NAU that summer and then that led to other opportunities...they needed someone in the winter, then they needed a drawing instructor in the spring, and so you know I just really had to hunker down and think about teaching, and how to do it, and how I wanted to do it. But one thing led to another, and then I ended up teaching part time at the [Coconino] Community College (CCC) too, only they didn’t have a place to do ceramics so we taught the Community College classes at NAU. And then in 2001–2002 they built the new campus and Alan Peterson, who was art department chair, wanted to make sure they had a ceramics department and that eventually led to a full time position at Coconino Community College. So that was great. So I taught full time at the Community College for three years.

* * *

TIBBETTS: In the fall of 2004 I was diagnosed with ovarian cancer. Yeah, which was quite a shock.

WILLIAMS: Yeah, no doubt.

TIBBETTS: I really couldn’t remember having a lot of symptoms, but thinking back, after I was diagnosed, I did have a feeling on my right side that something wasn’t quite right and that maybe I had a pulled muscle over on my right, sort of my lower back. I had been active all summer, and done a lot of hiking, helped out with some workshops at CCC, and nothing seemed off except for this feeling of a pulled muscle, the odd thing



Cover illustration for *The Hibernacle News*, 1992.





They're Living on Nuts and Berries, 2014, 14" x 11" x 7"

being that I couldn't remember when I had done it. So one test led to another, and then I suddenly had this big problem, which was terrifying. I really didn't know what to do, it was just such new territory. I really didn't know how to cope. I didn't want to tell anyone. I even hesitated telling my family, until my Mom figured it out. I think I felt that telling people would make it more real, you know, I just couldn't believe it was true. The Community College was great. I had good insurance and with "Family Medical Leave" I was able to take time off and not lose my job. Without that I just don't know what people do.

So I was sent from Flagstaff to have surgery in Scottsdale, with a gynecological oncologist. And then he did my first chemotherapy before I was even out of the hospital and sent me back up to Flagstaff. By then I wasn't just sort of terrified, I was also really pissed. (laughter) I mean, I think it was a combination of being really scared and also kind of angry that this had happened to me.



The Perfect Storm, 2014, 22" x 11" x 7"

I followed up with all the rest of my chemo here in Flagstaff. I had to do chemotherapy every three weeks, for a total of eight rounds. In the meantime things happened like my water tank got crushed because I didn't pay attention and keep it full. (laughter) And I think Chris [McIntosh] and Les [Hutchison] helped dig it out. A lot of people helped me. Dan Dierker and Paul Zeller helped me put a new water tank in. And, finally I was letting go of just not knowing how to tell people. Elena [Kirschner] helped me when I wound up back in the hospital. Walt Taylor helped me manage and navigate the medical scene. Ruthie Stoner brought me the book *It's Not About the Bike* by Lance Armstrong. Of course, that was before everyone figured out he was cheating. (laughter) But still, that book really helped me. It helped me a lot to read about people who had



Wild Thing, 2013, 12"x 10"x 2"



Old Friend, 2013, 12"x 10"x 2"



God Makes the Horse, 2013, 12"x 10"x 2"

survived cancer. I joined a support group, and I realized I just wasn't so alone. And that it wasn't personal. Getting cancer isn't personal. It's not your fault, and it can happen to anybody. It doesn't matter who you are.

So I got through the standard chemotherapy regime. I was in a clinical remission but still looking around for other ideas because I knew my prognosis was not so good. With late stage ovarian cancer, even though you can get into remission pretty easily with chemo, it's likely to come back. So that's what led me on to MD Anderson Cancer Center in Houston, to do a clinical trial for ovarian cancer. The trial was an autologous stem cell transplant with high dose chemotherapy. So I went there and I said "Sign me up. I'll do whatever." I had done a second look surgery that indicated the cancer would come back, so I figured what have I got to lose? And there again, my insurance was so good, they paid for a lot of the transplant. There had been a lot of success with stem cell transplants for leukemia and lymphoma, but it was just starting to be tried in clinical trials with solid tumor cancers, like breast cancer and ovarian cancer, so it was pretty experimental. The way it is supposed to work is that the stem cell transplant creates a new immune system that will recognize the cancer and keep it from coming back.

The stem cell transplant was a long ordeal. I went there knowing I would have to stay in Houston for at least two months. One month in the hospital and thirty days in an apartment for recovery after the transplant. The process starts with chemo, then getting Neupogen® shots to create baby stem cells, then harvesting the baby stem cells through an IV process and freezing them. Then into the hospital for high dose chemo, which makes you really sick, then when your white count is

down to zero they give you your baby stem cells back, through IV. Then you wait for engraftment. The baby stem cells find their way from your veins to your bone marrow. Engraftment in the bone marrow happens after ten days or two weeks and your white count recovers. When the white count is up pretty good you get to leave the hospital, go to your apartment and try to feel better with check ups almost every day.

2005 was the summer that Hurricane Katrina slammed New Orleans, and then a couple months later Hurricane Rita was headed straight for Houston. I remember sitting in a waiting room, with my brother and other patients, waiting for chemo, a test, or something, and watching the news on TV. They had the FOX TV channel on in all the waiting areas. It kept showing over and over again this swirling counter clockwise storm headed straight for Houston. Over and over... And here we were, all of us poor cancer patients sitting there in the waiting room, staring at



Day of the transplant with brother Steve's stem cells, April 16, 2009.

the TV, and thinking, *Oh god, I have cancer and now a hurricane?* [But that's a whole other story!]

By the fall of 2005, I finally went home, I was in remission, and everything seemed pretty good. I went back to teaching the spring of 2006, and then I taught all the way 'til the fall of 2008, when I had a recurrence—cancer came back.

I did finish up that fall semester, even though I had started chemo again. I had stayed in touch with MD Anderson since the transplant mainly because I had follow up appointments every four months, and they said, "Well we have this other clinical trial. After you're done with your chemo, if you get back into remission, we have this other trial you can try." It was another stem cell transplant clinical trial, only instead of a transplant with my own stem cells it would be with a matched donor, called an allogeneic stem cell transplant. And that's a long story too. But anyway, to make a long story short, it turned out that my brother, Steve, was a perfect match. And he was really excited, and happy to be a donor. So I went through the whole thing again, only with his stem cells. And *he* was the one that did the Neupogen® shots, and had his stem cells taken out and frozen. And in the meantime I got the high dose killer chemo again, and then I got his stem cells. Anyway, that was a long ordeal. I had to stay in Houston for four months the second time.

We got through it and for both transplants I had to have a caregiver with me during the weeks of my recovery in Houston. Of course, my family traded off coming, and so many friends came and helped me get through those transplants. Finally I got home, for the second time, and that was around the end of July of 2009. Follow up was again a series of checkups and scans every four months, for three years. With such an uncertain future, I decided to retire from my teaching job. And time went by, years have gone by, and I'm still here. Check ups now are every six months. They still make me pretty nervous, but it hasn't come back—knock on wood—and since my last transplant with my brother's stem cells, it's been ten years. So that's pretty good. So I'm a very, very lucky person.

* * *

TIBBETTS: That was sort of like my third career. I think my first career was river running, my second career was teaching art, and my third career was dealing with cancer.

WILLIAMS: Yep.

TIBBETTS: And now I'm doing whatever...

WILLIAMS: That's your fourth career. (laughter)
Hopefully that will be a long one.

TIBBETTS: And I did do a private trip in 2015, with Tom [Brownold] and Mimi [Murov] and that was a real small, nice little private trip. And it was great. To go back after how many years... like 21 years. And it was nice to get back on the river and see that everything was much the same. It felt like yesterday. The runs were just as I remembered. It's amazing how all that stuff is kind of etched in your brain. You know, beaches are a little different, a little more arrowweed, just as much wind. (laughter) We had a pretty variable-weather trip because it was April, but it was really fun to get down there again. I remember saying to Mimi, I feel the most like myself when I'm there, or when I'm hiking, or something like that—I feel most like who I am.



Alida Dierker, Elena Kirscher and Ellen on Humphrey's Peak, 2017.



On a private trip in Grand Canyon, 2015. Photo: Tom Brownold

News from the Whale Foundation

HELLO BOATERS! This is Sam Jansen, writing to you from the desk of the Executive Director at the Whale Foundation. There's some good stuff to tell you about.

John Napier has moved to Germany to pursue new adventures with his family. I hope you'll join me in wishing him well and congratulate him on all the great work he did for the foundation during the last four years. I reckon we'll see him in the canyon again before too long.

I'm very excited to be at the oars. Over the years, the Whale Foundation has become an increasingly central part of the Grand Canyon river community, with amazing and generous support, and programs that matter in guides' lives. I'm looking forward to keeping the boat in the current, and maybe trying a few new things to help fulfill the foundation's mission: supporting health and wellness for the Grand Canyon river guiding community.

Here's some of the latest news:

Every year, in honor Kenton Grua's lifelong drive to learn and grow as a person, the Whale Foundation awards scholarships in his name. Our goal is to support guides as they work to further their education. Fourteen people applied this year—almost twice

as many as in 2018. Due to generous support from the Grand Canyon community, we were also able to increase our number of scholarships this year to five awards of \$2000 each. We wish great success for all our applicants, and want to congratulate our five winners: Jed Gantert, Lena Lander, Mark Gober, Sean Pope, and Tess McEnroe.

Our counselling services are expanding this year, too. We've been able to add a financial advisor to the mix. If you'd like to start plotting a course to retirement or getting a handle on any other money issues, you can set up a free appointment through our helpline. We're also working on getting a sharp real estate agent on board who can help with good advice—and maybe reduced costs—when it's time to make the leap to home ownership.

Check out our website (www.whalefoundation.org) to get the latest on what we have to offer, or to reach out if you'd like to be involved. And, as always, the helpline is there for you: 1-877-44WHALE.

Just as a great crew can lift a river trip up to the next level, a great community can help take life up a notch. Thank you for being part of it.

Sam Jansen

A Final Note of Farewell and Support

IAM PLEASED TO leave the directorship of the Whale Foundation in the very capable hands of Sam Jansen. He's been a guide for three decades and a leader throughout that time. Sam is thoughtful and heartfelt, and I instantly recognized the gifts he'll bring to this organization and its mission. Like watching a new line in familiar whitewater, I can't wait to see what Sam's know-how lends to the Whale Foundation and where he will take it. All forward, no doubt.

On a personal note, it has been an incredible honor to participate in the work of the Whale Foundation. All the thanks in the world goes to the visionary founders who had the insight to build such a unique network of support. And to our board and committee members who personify our unofficial byline of "guides supporting guides," thank you for your time and intention.

And finally, to every guide who has participated in our programs of assistance and shared their experience

with another, *this* is Curtis "Whale" Hansen's legacy, this growing family of support. I would implore you to seek out more ways to contribute to our mission, to reach others who would benefit from our services.

We are a small tribe in a small corner of the world. The challenges of our guiding lifestyle are unique, exacerbated by the confined geography we live in. But in this narrow space, we have each other. There is no better resource of support than the crew we're with. Be a part of that support.

Joy, shipmates! Joy!

John Napier

P.S. In case you want to connect:
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boatman's quarterly review

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