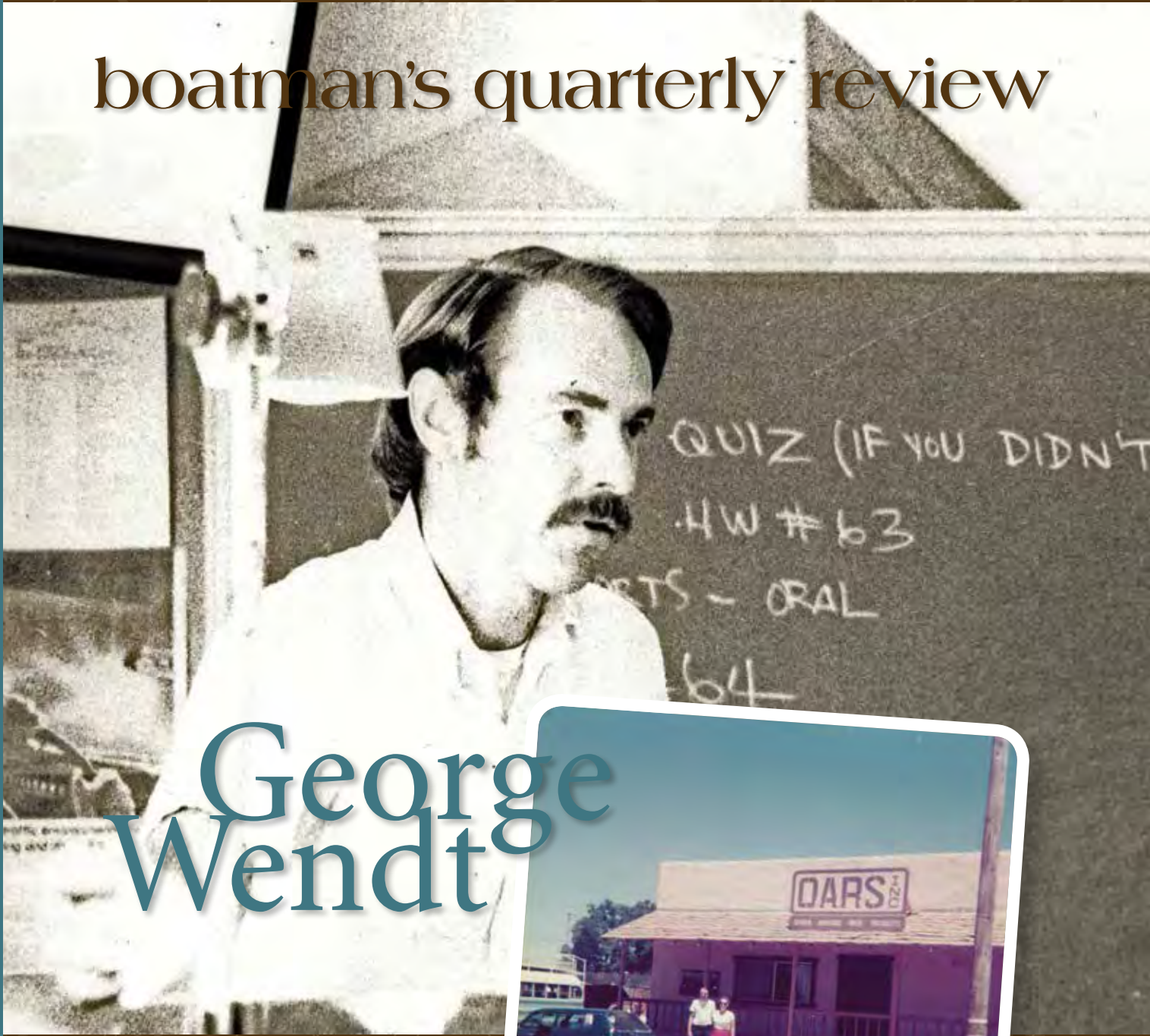


boatman's quarterly review



George Wendt



Changing of the Guard • Prez Blurb • Dear Eddy • Historical Art • Guide Profiles
Back of the Boat • River Reflections • Dip and Rise • Fall Rendezvous
Tales From the Truck • Building Sandbars • GGCHNM

boatman's quarterly review

...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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Our editorial policy, such as it is: provide an open forum. We need articles, poetry, stories, drawings, photos, opinions, suggestions, gripes, comics, etc. Opinions expressed are not necessarily those of Grand Canyon River Guides, Inc.

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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The Changing of the Guard

I appreciate all the people who volunteered to run for office... Choosing to contribute to the Greater Good amongst us is a profound teaching of our Canyon experiences, and one which we are "charged" with bringing with us into the world beyond the rim. I have faith that whoever is elected will do a great job moving from the depths of his/her integrity and commitment to serve. Thanks to you all.

—Anonymous comment on the 2015 GCRG ballots

STEWARDSHIP, ACTIVISM AND PASSION have fueled Grand Canyon River Guides from our humble beginnings in 1988 to the strong, collective voice for river protection that we provide today. You'll notice a few fresh names on the masthead as the result of our election earlier this fall. Congratulations to all of you! Already this fine group is gearing up to take on the eis firestorm this winter with the Long Term Experimental and Management Plan for Glen Canyon Dam, and the Backcountry Management Plan. I am completely confident they will rise to the occasion as so many past GCRG boards have done when grappling with a myriad of complex and difficult issues over the years.

I would also like to express our deepest appreciation to outgoing president Katie Proctor. Katie's effervescent personality and fierce determination to protect Grand Canyon helped guide us over the past year. I am also incredibly thankful to outgoing board members Justin Salamon and Jalynda McKay who gave their all to GCRG during their two year term. What amazing people, good friends, and outstanding colleagues!

Next time you see any of these fine folk, please express your thanks. Indeed, each and every one of them has contributed enormously to the "Greater Good" of Grand Canyon and the Colorado River.

Lynn Hamilton
EXECUTIVE DIRECTOR

Cover photo: George Wendt teaching math.
Inset: OARS office, 1980s.

Prez Blurb

I AM HAVING TROUBLE writing this. Distractions are everywhere here in my home life. I probably should have written my prez blurb while I was down in the canyon. If you are reading this you have probably been down in the Canyon, maybe many, many times. You know how the canyon, that open space, and the awe-inspiring beauty can allow you to unplug and hone in on what is really important in your life. Without the constant ding of the text alert and ring of the iPhone, you can sit with yourself long enough to hear what is in your head. You can lose yourself staring at the river flowing by enough to feel your bones and muscles talk back to you, especially if you've just done an epic hike into one of the many remote side canyons of the Grand Canyon. You get to see yourself react to the pain of snapping an oar in half on the black rock in Lava or respond to a particularly difficult person on the trip. You get to know yourself on a deeper level and therefore others can get to know you in that way.

On my Yoga Trip this summer, I read from the book *The Invitation* by Oriah. The words on the cover, "It doesn't interest me what you do for a living. I want to know what you ache for..." speak to the nature of time in the Canyon, time in the wilderness with others. I often go whole 14-day oar trips and never learn what most people's professions are. And, in those same trips I learn so much about the hearts and instincts of the people with whom I am traveling. Have you experienced that?

There is something so primal about being in a place such as the Grand Canyon. It is hard to hide who you are and what drives you, what you are passionate about, and what annoys the hell out of you. And, you have to deal with it in the presence of individuals who you may or may not already know. With that experience along with the solitude that the Canyon provides, you can make life-altering changes. Many people leave the canyon with a renewed sense of where they want to go, who they want to be, and maybe more importantly what they don't want or actually find to be important.

When you strip away all the superficial aspects of life it comes down to people. I am often asked what keeps me coming back trip after trip and year after year as a guide. My answer is always the same...the people. I find people fascinating and I learn a lot about myself in seeing how I interact with others and by observing how they interact with each other. Being a guide there is a never-ending, always changing flow of

people and combinations of individuals coming to do river trips.

What I feel I have learned over all of these trips is that we are all the same—trying our best, holding on tight in the big waves, and pooping in a metal box, just like the person next to us. Isn't that a statement about life itself? It doesn't really matter what kind of house we have or if we live out of a truck or in our best friend's backyard in a teepee. Who we are ultimately drives us to act. I guess that is why I keep finding myself drawn back to Lynn Hamilton and the Board of Grand Canyon River Guides. This year I am proud to step into the role of President of the Board. Open space and keeping wild places wild feeds me.

It is hard for me to step away from the Internet and the constant flow of data on *everything*, but the Canyon teaches me how to focus, how to reconnect with what makes me unique and strong. In these months ahead is an opportunity for me, for all of us... to look back on our pictures, recall the moments that make us laugh and affect us deeply. Let's take that passion and love and live the life that we want for ourselves—to find quiet in this cacophonous world and make our voices heard on what is important. Whether that is about the Grand Canyon and the many threats facing it like the Escalade proposal, or electing a new president, or singing as loud as you can on a street corner in New York City, I hope you let people know who you really are and what you strongly care about.

I hope I get a chance to do a trip with you someday and hear what makes you tick.

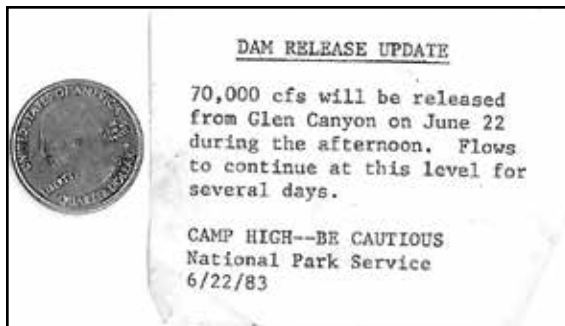
Have a great winter out there everyone! I look forward to seeing many of you at the Guide Training Seminar the first weekend in April, on the other-side of the snowy season!

Laura Fallon

Dear Eddy

IN REFERENCE TO THE ARTICLE *River Archaeology*, IN BQR
VOLUME 28, NUMBER 3, FALL 2015

GUESS I AM RESPONSIBLE. On June 18TH 1983, I cut that main frame loose from an upside down Western J-rig just below Black Tail canyon. Steve Lawry and I were brought by helicopter from the South Rim to aid in the retrieval of the J-rig that flipped in Crystal and ended up in that area. We were dropped off, then roped down to the rig in the eddy. It was severely “humped” as the frame, under the boat, was hung up with two corner straps, and chains were broken. We were unable to get into the river current due to the drag of the frame. Thought we had freed it in deep water area. Guess not. Once cleared, we floated to a downstream sand bar and used a helicopter to turn the rig back over. The second boat towed the rubber out of the canyon. I was helicoptered back to the South Rim then to Lees Ferry where my next trip was rigging out and departed the next day. That is when the extreme high water of '83 hit and led to a very eventful day at Crystal, which is another story. Blame me if you ding a prop on the frame.



This note was dropped to our trip at Redwall Cavern by helicopter. At that level we could drive our J-rig right to the back wall of the cavern. Then the water really started to come up.

Bill Skinner
30-year guide for Western (WRE)

IN REFERENCE TO THE ARTICLE *Kayaking Blind*, IN BQR
VOLUME 28, NUMBER 2, SPRING 2015

IREAD ROB PANOS' FINE article *Kayaking Blind* (BQR, Spring, 2015) with great interest. It does a remarkable job of addressing the process by which a dream is converted into film footage that will ultimately reflect the astounding power of uncompromising personal initiative. This is commendable in all regards.

What the article does not do, however, is mention that kayaker Lonnie Bedwell successfully completed the first descent of the Grand Canyon by a blind paddler in an effort sponsored by Team River Runner in 2013. The 2014 effort documented in BQR's spring 2015 issue was an inspired, hugely successful, team-driven command performance—but it was not a first descent.

For all its ups and downs, the Colorado River in the Grand Canyon is a great equalizer. Both Lonnie Bedwell and Eric Weihenmayer serve as stellar examples of the potential that is present in each of us—potential illuminated by the brilliant light of one of the most challenging whitewater venues on earth. That said, credit should be given where credit is due. In 2013, Lonnie Bedwell and Team River Runner blazed the trail through the Grand Canyon for visually impaired people. In my judgment, they deserve a pathfinder's credit for having done so.

Bryan Brown

A Note of Thanks!

IN THE SHARING of our “paradise,” Grand Canyon river guides take on new challenges every single trip. Huge efforts and reflex reactions are a must in this industry. Your knowledge, skill and compassion never goes unnoticed...I believe river guides define who the outfitter really is. A big *thanks* to you all for who you are and what you do...making GCE very proud!

Marty Mathis

Books!

Going Down Grand: Poems from the Canyon, Edited by Peter Anderson and Rick Kempa, Lithic Press, 2015, 144 pages ISBN 978-0-9883846-5-1, \$17

THE SAYING GOES: People seeing the Grand Canyon for the first time declare it to be indescribable, and then they expend hundreds of words trying to describe it. Often not very well. Sometimes our best tribute to the canyon would be to be struck dumb by it. Poets are supposed to be the best artists of words, but most Grand Canyon poetry has been either superficial or overblown, or both at once. Most poets have viewed the canyon as rim tourists, viewed it as a distant visual spectacle, never gone down the trails or the river, never transmuted the scenery through breath and muscle, never been engulfed by the silence and the roar, the beauty and the heartache, never heard the canyon speaking with its own voices, but merely forced upon it lots of old purple literary habits.

Yet for decades now the canyon has been generating quite a bit of good poetry, generating it through the eyes and hearts, the rock-sore feet and wave-stressed arms of people who have gotten to know the canyon from the inside. This poetry has been published in widely scattered outlets, hard to find. At last, it's been brought together into an anthology, and a very attractively designed one. This may be the first book of poetry in world history to be dimensioned to fit into an ammo can. It's been brought together by two editors who have devoted decades to hiking and rafting the Grand and other canyons, who can spot from a mile away the difference between a condor and a turkey vulture, a wave and a hole, an honest or bad canyon poem.

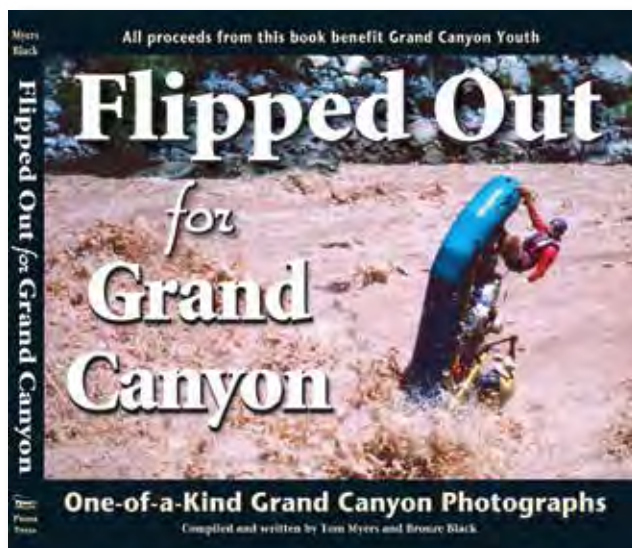
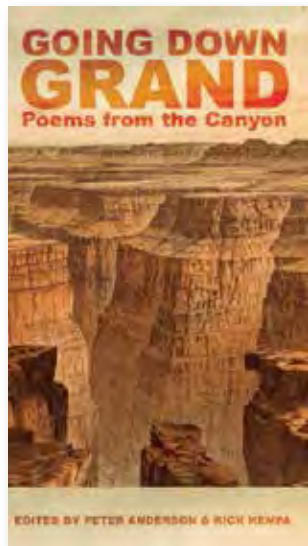
The editors ruled out Victorian-era poets whose style—O thy rhetoric!—would seem archaic today, and offer mostly contemporary voices. There's a few famous poets: Carl Sandburg, whose words are engraved on the walls of the park's Visitor Center

auditorium; and Yevgeny Yevtushenko, the Soviet dissident poet who filled stadiums in the 1960s. There's well-regarded southwestern voices: Mary Austin, Maynard Dixon, Michael Kabotie, Bruce Berger, Reg Saner, Margaret Randall. There's members of the Grand Canyon community past and present: William W. Bass, Vaughn Short, Rebecca Lawton, Amil Quayle, Ann Weiler Walka, Jean Rukkila, Seth Muller. There's a whole section on running the river, poems about Lava Falls, Crystal, Georgie, Powell, Glen and Bessie Hyde, Bass Camp, Blacktail, much more. There's poems that bring out the spirit of hiking, geology, side canyons, the night, wildlife, sunsets, Native Americans, personal connections and disconnections, the magic of it all.

Don Lago

Flipped Out for Grand Canyon: One-of-a-Kind Grand Canyon Photographs, TOM MYERS AND BRONZE BLACK, Puma Press, 2015, 226 pages, ISBN 978-0-9847858-1-0, \$26.95 (soft), \$39.95 (hard).

PERHAPS IT'S SOMETHING of a cliché to say that the finest books about the Grand Canyon almost always wind up doing the same thing, which is that they immerse readers in the peculiar rhythms of the canyon by mirroring the shape of a river trip: a languorous and meandering journey through pockets of wonder, punctuated by moments of high and unholly terror. But this does nothing to diminish the sense of delight when yet another author comes along—or



in this case, two of them—to sweep you downstream by exploiting the very same move.

For more than fifteen years, Tom Myers and Bronze Black have been collecting images of the canyon the way the rest of us gather up heart-shaped rocks next to the river: spotting them randomly here and there, sticking them in their pockets, and taking them home in the hope that when they are placed on the kitchen window sill, or laid out next to the front porch, those stones might strike our eye at odd moments and transport us back to the spot where they (and we too, perhaps) most truly belong.

Thanks to the authors' efforts to draw from so many eclectic sources—guides, hikers, kayakers, and other riffraff—*Flipped Out for Grand Canyon* may strike even the canyon's river-history experts as edifying and revelatory. For who won't pause to examine the mysteries of Ten Mile Rock—a feature most of us know only from the top—as they were revealed during the trickling, low-water year of 1963? And who will resist the impulse to toggle back-and-forth between the shots that chronicle how Crystal dismembered (and all but devoured) a massive Tour West rig during the runoff of 1983, the only modern-era flood whose ferocity and destructiveness surpassed even the great high-water years of the late 1950s.

In addition to an excellent introduction by Brad Dimock, who may be the finest storyteller and wooden-boat historian that the canyon has, this book features some necessary and evocative reminders of nature's mercurial moods: the flash floods that regularly tear the guts out of Havasu; a pair of oar shafts cloaked in new-fallen snow at Lees Ferry; the ephemeral monsoon waterfalls along Marble Canyon that are there one moment, gone the next. And, yes, as the title suggests, there's some carnage here too.

Well—let's rephrase that. Good god is there carnage! This book contains enough shattered oars, smashed frames, shredded tubes, and gut-wrenching moments of breathtakingly violent, axel-busting brown-water fury to satisfy pretty much anyone who has ever gotten cold-cocked by the Colorado. But it must also be said that the pages and pages of shipwrecks serve mostly as a side eddy—a line of current that is voyeuristically entertaining but which should not be confused with the ideas flowing through the center of this book that define its essence.

It's true that a number of these pictures were taken by gifted professionals. Yet far more are the work of amateurs: folks who are humorous, playful, and in

many instances, lucky enough to have been at the right spot at *exactly* the right time. What Tom and Bronze have done by welcoming them all is to stage a visual banquet that not only reflects but also celebrates the canyon's basic democracy. A place where competing interest groups—private boaters and commercial outfitters; oarsmen and motor operators; recreation advocates and the defenders of wilderness—must all find a way of cooperating if they are to have any hope of defending the canyon against its greatest enemy: the developers who seek to profit at the expense of everyone else by peeling off and destroying pieces of the commonwealth. Which is why it's so fitting that the authors are planning to donate the entire proceeds of this book to an organization that commands the smallest footprint and the most generous vision of them all.

The thing that separates Grand Canyon Youth from the rest of the river community is that its core mission is inherently selfless. It is a core belief of the people who created and run GCY that nature is a gifted teacher; that immersion in wilderness can transform

... the authors are planning to donate the entire proceeds of this book to an organization that commands the smallest footprint and the most generous vision of them all.

lives; and that if no single group of users commands a greater right than any other to access the canyon, first among equals are surely the young—the gemstones we hold, collectively, in the palms of our hands.

Which brings us back to the business of those heart-shaped rocks.

Those keepsakes, we know, are infused with a kind of magic, and it is the same magic that runs through this collection of images: a mosaic of reflected moments that have been polished by the flow of time and the agency of human memory until they gleam with a light that is not only familiar and gratifying, but also inspiring.

One can only hope that this book will be the first in a series, and that each subsequent edition will reinforce the same essential message: that if you believe that a part of you belongs to Grand Canyon, then you carry a responsibility no less sacred than the land itself. To defend it, to share it with others, and to enjoy this place in a way which ensures that its treasures—so many of which are captured in these pages—will be passed along, intact, to our kids.

Kevin Fedarko

Historical Art

MANY OF YOU doubtlessly know the story of Bessie and Glen Hyde, Grand Canyon's mysterious and tragic honeymoon couple. For those of you who don't, Bessie and Glen Hyde set off from Green River Utah on October 20, 1928, in their home-made Idaho scow. Bessie would have been the first woman to run the Colorado River through the Grand Canyon, and they planned to use their up-coming fame to make a fortune. When they reached Phantom Ranch, they hiked up to the South Rim, where the Kolb brothers tried to give them lifejackets. Bessie and Glen refused, and continued downstream, making it to somewhere below Diamond Creek. Their scow and belongs were recovered, but they had disappeared. Their fate remains a Grand Canyon mystery, with many a boatman's yarn spun about their fate.

After reading Brad Dimock's excellent book, *Sunk Without a Sound*, I decided that Bessie and Glen deserved an epic painting about their adventure, like the evocative N.C. Wyeth illustrations I was so fond of as a child. I have always loved paintings that tell a story, like Norman Rockwell's illustrations and Winslow Homer's "Gulf Stream," with the sharks circling a mastless dinghy and fisherman. Bessie and Glen's story seemed equally epic and has fascinated me, more so after my soon-to-be husband and I took a solo raft down the Canyon on our own honeymoon trip. I could relate to Bessie and Glen's joyful budding relationship, their terror of the unknown, their enforced partnership on the oars, their revels in their own strength and competence. They probably had some intense fights, stuck on that scow for months

together in the cold, with fear for fuel. And there would have been wonderful moments of bliss, great sex, and great sightseeing too.

I decided I wanted my painting of Bessie and Glen

to be sited at the top of a rapid, in that moment, hovering on the tongue, when all is revealed, just before the maelstrom hits. Horn Creek was the obvious choice, with its seductive horn wave, looming black cliffs, and ominous winter shadow across the rapid below. I wanted the painting to be as historically accurate as possible, and Brad Dimock was extremely helpful, sending me images of their scow and clothes. My husband, Chris and friend, Susan who is tiny like Bessie, were my models. The actual painting took about five weeks, with some breaks in between.

The finished painting is currently showing as part of the Grand Canyon Celebration of Art, at the Kolb Studios on the South Rim of the Grand Canyon. This show of work by 24 fantastic

artists will be up until January 18 2016. I hope you can make it by to see all the lovely paintings of the Canyon.

NOTE:

Elizabeth Black was a river guide for AZRA and ARTA on the Stanislaus, Tuolumne, Rogue and Grand Canyon in the 70s, 80s and 90s. She lives in Boulder CO with her artist-photographer husband Chris Brown (AZRA boatman) where she paints western landscapes and grows Christmas trees. More of her work can be seen at www.ElizabethBlackArt.com. (She says they didn't have any tears or yelling or pregnancy on their honeymoon trip down the Grand.)



"Bessie and Glen in the Valley of the Shadow, Horn Creek Rapid, 1928 " 28 x 38 inches.

Guide Profiles

Siobhan McCann, Age 33

WHERE WERE YOU BORN AND WHERE DID YOU GROW UP? Born in S. Tampa, FL. Moved to Phoenix, AZ when I was 16.

WHO DO YOU WORK FOR CURRENTLY (AND IN THE PAST)? I have only ever guided for Wilderness.

HOW LONG HAVE YOU BEEN GUIDING? I have been with Wilderness for seven years. I was still learnin' to tie a knot on my first trip.

WHAT KIND OF BOAT(S) DO YOU RUN? I am trained in both the art of rowing and motoring an S-rig. My training could still use some fine tuning.

WHAT OTHER RIVERS HAVE YOU WORKED ON? I've only guided on the Colorado. I'd love to guide some other rivers; one day perhaps I'll branch out.

WHAT ARE YOUR HOBBIES/PASSIONS/DREAMS? In the summer, I enjoy my time off watching movies in my cold, dark house. Winter time, my fiancée Craig and I fall in love all over again. We just explore... backpacking, take the little boats out, cross country ski. And house chores.

MARRIED/FAMILY/PETS? Craig and I are eloping in the spring. He is the most amazing man I have ever met. One day we'll get a pup, but we're not ready for that kind of responsibility just yet.

SCHOOL/AREA OF STUDY/DEGREES? I studied the great art of philosophy at Arizona State University. Graduated with a BA in BS and never looked back.

WHAT MADE YOU START GUIDING? My quest to be a Grand Canyon river guide started my senior year of college. A friend brought me on a trip as a client, and I fell in love. Next year I graduated college, quit my job, rode my motorcycle into the bed of my 1982 Ford F150, and drove up to Page. I parked that truck out on the lake, and bugged my boss 'till he gave me a job. Here I am seven years later, and I'm hooked.

WHAT BROUGHT YOU HERE? My dad brought me on a Grand Canyon Dories trip when I was fourteen and I knew immediately that I had found my calling.

WHO HAVE BEEN YOUR MENTORS AND/OR ROLE MODELS? I've got quite a list of river mentors. Zach Chappell tried to teach me to drive, but mostly he taught me to be a



good guide—know your shit, give a fuck, and never give up. Ariel Anderson did all those things, and did them with an elegance that I always admired. The list can go on. Wilderness has given me the opportunity to work with amazing people, and to truly experience a close family.

IS THIS YOUR PRIMARY WAY OF EARNING A LIVING OR DO YOU COMBINE IT WITH SOMETHING ELSE? This is my income. I try to stay strict about savings, but I do enjoy the bar with my good buddies. I pick up some service work here and there as well.

WHAT'S THE MOST MEMORABLE MOMENT IN YOUR GUIDING CAREER? My most memorable moment to date was fairly recent—the *ledge hole*, holy shit! It's not very often those fleeting moments of "I'm Fucked" happen. No need to figure out plan B, cuz I'm fucked. And now...recovery. Boy she's mean lookin' before she swallows you whole.

WHAT'S THE CRAZIEST QUESTION YOU'VE EVER BEEN ASKED ABOUT THE CANYON/RIVER? Another recent memory, same trip as the ledge hole. A lovely women is gazing up at a barrel cactus growing out of the schist and, dead serious she says, "This must be pretty fertile land wouldn't you say?" I was speechless, I could not think of anything to say. I'm still speechless.

WHAT DO YOU THINK YOUR FUTURE HOLDS? My future probably has a good bit more of the same. I am in a great place right now, and I am grateful for it. Even in angry August, seven trips down, four to go...I love my job! One day I would like to own a small business; I can't see a 9 to 5 in my future. For right now, tryin' to hold back the pennies and live the good life.

WHAT KEEPS YOU HERE? I am kept here by the entire package. I may be a hedonist with no sense of social etiquette, but so are my friends. And I love this place!

Kate Aitchison, Age 27

WHERE WERE YOU BORN AND WHERE DID YOU GROW UP? I was born in Flagstaff, AZ and grew up there in the wonderful arms of the desert southwest.

WHO DO YOU WORK FOR CURRENTLY (AND IN THE PAST)? I work for CanX and Grand Canyon Youth.

HOW LONG HAVE YOU BEEN GUIDING? Four seasons in Grand Canyon and nine seasons total.

WHAT KIND OF BOAT(S) DO YOU RUN? The rowing kind.

WHAT OTHER RIVERS HAVE YOU WORKED ON? San Juan, Middle Fork of the Salmon.

WHAT ARE YOUR HOBBIES/PASSIONS/DREAMS? When I'm not boating, *art!!!* And connecting art and science and conservation to talk about place, specifically the Southwest and conservation issues surrounding water in the desert.

SCHOOL/AREA OF STUDY/DEGREES? I am currently in graduate school at Rhode Island School of Design getting my Masters of Fine Arts in Printmaking.

WHAT MADE YOU START GUIDING? I fell in love with the Grand Canyon when I was 16 years old on a Grand Canyon Youth trip. After that I knew I would never really want to leave and the only thing I wanted to do was learn how to row and boat and go back to the Grand Canyon, a place that made my heart sing and made me feel more alive than any other place I had ever been.

WHO HAVE BEEN YOUR MENTORS AND/OR ROLE MODELS? A major mentor for me has been Emma Wharton. Her passion and emotion for rivers and for young people is absolutely incredible and her ability to think critically about how to create future stewards of the Colorado Plateau has kept me coming back to work for her every year. I believe wholeheartedly in the ability of these places to change lives and create humans who want to keep these wild places thriving because that's what Grand Canyon did for me and Emma was a huge part of that. I feel an obligation to give back to the place that gave me so much.

Fritz has also been a huge influence on the way I think about art, science, and rivers. She has such a

passion and a history with Grand Canyon and she still *loves* it. It is so inspiring to talk with her about her trajectory, her accomplishments, and her thoughts on experiential education in regards to science, hands on experience, and connection to place.

IS THIS YOUR PRIMARY WAY OF EARNING A LIVING OR DO YOU COMBINE IT WITH SOMETHING ELSE? Guiding has been my primary way of earning a living for the past four years. Now that I'm in grad school I see myself transitioning from full time to part time, but still as an active part of the river community.



WHAT'S THE MOST MEMORABLE MOMENT IN YOUR GUIDING CAREER? One of the most amazing moments for me was when I watched a completely blind 16 year-old kid jump into the river all by himself for the first time. The pure joy in his shriek of hitting the cold water and the giggling that followed (along with about ten more jumps until he was too cold to continue) was such a marker of the power of the place and the power of the amazing people I work with to facilitate experiences that encourage positive risk taking and personal development. It was a

shining star moment for sure, and one that continues to warm my heart to this day.

WHAT DO YOU THINK YOUR FUTURE HOLDS? My future holds canyons and rivers, art and education, and conservation and connectedness. I want to continue to be a part of the Grand Canyon community and greater Colorado River Watershed community as an artist and activist for water in the desert. I want to help people realize that creativity is an integral part of any lifestyle and that creativity is an integral part of our future as we face a growing awareness of climate change, water shortages, and population growth. I want to be a steward for the Colorado Plateau and show people that art, science, conservation, and rivers are all more connected than they may first appear. This beautiful place helped to grow me into the person I am today and I want to give back to it over and over again in as many ways as possible.

WHAT KEEPS YOU HERE? The connection to this place—an overwhelming geographic location that I will never totally understand and always find something new in.

The angled light in the morning when you get up at 4:45 to light coffee; the stories etched in the rocks that speak to time beyond time; the stories of boatmen drifting up to mix with the stars late at night; watching my friends and everyone I take down the river in the most real form of their true selves—not distracted by cell phones or Internet—connecting back with the natural rhythms of the earth. The colors—so natural and yet so surreal, and complicated mixture of organic pigments and ferocious sunlight that create some of the most spectacular images I have ever seen.

ONE MORE THING YOU SHOULD KNOW ABOUT!! This past summer I had the opportunity to work as a Maharam STEAM (Science, Technology, Engineering, Art, and Math) Fellow USGS and GCY with gracious funding from my graduate school, Rhode Island School of Design. The fellowship is an opportunity to work with government and non-profit organizations who do not usually hire artists or designers as a part of their team. Working specifically with the citizen science project “Fly-Co” in the Aquatic Food Base Lab at USGS,

I made visual materials for the public that described the importance of aquatic insects to the entire food web of Grand Canyon. I then guided on the USGS/GCY food base trip and worked with scientists and youth to connect art and science as a way for observing and understanding place from a variety of perspectives. You can check out more about what I did this summer by looking at the Maraham STEAM Fellows blog at <http://risdmaharamfellows.com/>

This experience really taught me the importance of the connectedness of everything and how by bringing people together with different backgrounds to work and think creatively, new and exciting tools for visual communication and greater understanding can come into being.

I would never have been able to develop this opportunity if it wasn't for my opportunities with Grand Canyon Youth and then with Canyon Explorations/Expeditions, so I just want to say thank you to everyone in the greater Grand Canyon community who has supported me and made it possible for me to be who I am today.

Important Dates 2016!

GCRG IS ALREADY gearing up for spring training! Check out the GCRG website, www.gcrg.org, for more info (and to sign up):

- WFR Re-certification (sponsored by GCRG): February 19–21, 2016 at AZRA in Flagstaff.
- GTS Land session: April 2–3, 2016 at Hatch River Expeditions in Marble Canyon.
- GTS River trip (upper half): April 4–10, 2016, Lees Ferry to Phantom Ranch.
- GTS River trip (lower half): April 10–19, 2016, Phantom Ranch to Pearce Ferry.

And contact Marlene Gaither, mgaither@coconino.az.gov at Coconino County Health Department to sign up for:

- Backcountry Food Manager's Course: April 1, 2016 (the day before the GTS Land Session) 10 A.M. to 2 P.M. at Hatch River Expeditions in Marble Canyon, AZ. Cost is \$18. You should bring: Chair, mug, bag lunch, and driver's license (ID is required).

Job Announcement

CANYONEERS, INC. is accepting resumes for shop assistant. Season runs from April through mid-October. Approximately 20 hours per week. \$9 per hour plus season end bonus and profit sharing after first season. Job can be “foot-in-the-door” to river guide position for the right candidate. Position involves cleaning and repairing passenger issued river gear and other trip equipment as assigned and keeping shop clean. Prior experience preferred. Mail resume to Canyoneers, Inc. Attn: Joy Staveley at P.O. Box 2997, Flagstaff, AZ 86003 or drop off resume at Canyoneers: 7195 North Highway 89, Flagstaff, AZ 86003, Monday through Friday, 8 A.M. to 5 P.M.

Back of the Boat— The Whale Foundation News Bulletin

THE 2016 WHALE FOUNDATION CALENDAR

LAST YEAR WE FEATURED wildlife so this year we feature humans caught in their natural habitat in Grand Canyon. Thanks to all the contributors this year, we had some really wonderful photos to choose from. Check out our Facebook page and our website to see images you will find inside the calendar: www.facebook.com/WhaleFoundation.

Calendars are \$12/each and \$3/each for shipping. Order now by calling our business line at 928-774-9440. You can also just send us a check for \$15 to; P.O. Box 855 Flagstaff, AZ 86002 and we will send you one. There are a handful of retail stores in Flagstaff that carry it, you can find a list of these stores on our website. If you order ten or more, the price drops down to \$10/each and we will cover the shipping if they are all sent to the same address.



An image in the 2016 Whale Foundation Calendar

TIM WHITNEY WELLNESS INITIATIVE SPONSORS THE HEALTH INSURANCE ASSISTANCE PROGRAM

Do you have health insurance? Now is the time to get it. The Whale Foundation will once again offer the Health Insurance Assistance Program (HIAP) in 2016. The HIAP offers a \$400 stipend to offset the cost of insurance. You are eligible if you have worked as a guide on the Colorado River in Grand Canyon for at least one full season and you pay for health insurance out of your own pocket. Applicants do not need to be currently working as a guide and past recipients are eligible to apply. The deadline for applications will be May 1st, 2016. See our website for more information and application form.

THE WHALE FOUNDATION WING DING

The Whale Foundation Wing Ding is set for Saturday, February 20TH, 2016 from 6–11 P.M. at the Coconino

Center for the Arts (2300 N. Fort Valley Road) in Flagstaff. The Wing Ding is an opportunity to catch up with old friends, listen to great live music, get a great deal on an auction item or two, and support the Whale all at the same time. There will be dinner, a kids' corner, and a huge silent auction with lots of beautiful art, books, services, and getaways donated by the river community.

If you plan to donate an auction item, let us take this opportunity to congratulate you on being one of the finest people we know. We will be collecting items in the office at 515 W. Birch St. from 9 A.M. to 5 P.M. every day from Jan. 16TH to the 30TH. You can get more information and download a donation form at our website at whalefoundation.org.

Old (Archaeology) News

RECENT STUDIES OF archaeological sites near Kanab Creek in the vicinity of present-day Kanab, Utah have revealed apparent evidence of corn farming there approximately 3000 years ago. Two samples of maize were radio-carbon dated to 810-920 BC and 1120-1310 BC. The study results are preliminary at this time, with a final report forthcoming in 2016. While most of the corn farming sites in the Grand Canyon region are usually thought to be less than 1500 years old, some archaeologists have argued that earlier corn sites in Northern Arizona (and beyond) were likely to be found.



photo: Greg Woodall

Now, the next time you are visiting an archaeological site along the river and someone asks "When were people first growing corn in the Grand Canyon?" you can say "Maybe 3000 years ago!" (And perhaps, also mention that the Hopi and Paiute corn farmers say they have been here "since time immemorial"?)

Greg Woodall

River Reflections

ABOUT DAY FOUR OR FIVE—I lost track of the days pretty quickly—I was bobbing along in the dory and thought “I’ve been looking at the same red/buff/gray/brown rocks, and this same green/brown/red water, and the same scraggly green/grey/brown vegetation, and the same—well, let’s call them colorful—people over and over for days now. Sometimes a particular type of rock will be down here by the water. Sometimes the same rock will be way the hell up there, a thousand feet and more above us. Sometimes the water is drifty and calm. Sometimes it is charging and bucking and snorting like a bronco. A big, mean bronco. Some of the plants hold really beautiful flowers and butterflies, and some of the plants have thorns and fangs and leg-grabbing claws. And all of those words (up/down, drifty/calm, snorting/beautiful, etc.) describe the motley crew I am sailing with. And it is going to be like this for days and days to come. We are down in a hole and there’s no getting away from it. And it is awesome. Every minute, every mile. When we get to the end, let’s run back around to Lees Ferry and do it again.”

I thought I was coming to the River and the Canyon pretty well-informed. I didn’t know squat.

Going down the River through the Canyon has not been a spur of the moment deal for me. I have had this trip in my imagination for almost half a century. I have been to the South Rim many times, and the North Rim once, looking down onto the River below. I have read and collected books and articles and maps—maps about the history of river running, about the history and prehistory of humans in the Canyon, about Canyon ecology. I have positively geeked out over Colorado Plateau geology, from Verde Valley to Moab. I thought I was coming to the River and the Canyon pretty well-informed. I didn’t know squat. Maps and books, words and pictures are fine things, but until you are on the River and in the midst of the enormity of the Canyon walls, until you see it and feel it, you don’t really understand the Canyon. And, of course, you don’t Understand it, even then, but you have just a sense of what has happened and what is happening out there below the rim.

There have been a lot of Big Thoughts and Impressive Words written and spoken about the River and the Canyon. But it can be hard to have

Big Thoughts and come up with Impressive Words when you are actually on the River. Just when you are floating along, getting up a good head of philosophical steam, the particular reality of the River can wash over you—literally, as we learned, but in a boatload of other ways, too. In the middle of conjuring some fine idea about Nature and Man, you are distracted by nature and men—and women, certainly by women. A bighorn ram will pose itself atop a prominent boulder. The River will decide, just at that moment, to gurgle and swirl, and spin you about. Raindrops will spatter all around, although the sky overhead is clear and blue. The Canyon walls will rumble and shake with thunder—from the rapids ahead as well as the clouds above. An invisible wren will trill, filling the Canyon with song. A side canyon will open up to reveal a cathedral of stone and air, and then close again, and be gone. It is hard to keep a train of thought under way with all of that going on. So, I settled back onto little thoughts. Or no thoughts at all.

Nonetheless. Being out of the Canyon, and particularly being on the Road, gives the mind an ample opportunity to wander and wonder about the River experience. One idea kept coming back. It has been written, and it has been said—even while we were together in the Canyon—that among those ancient rocks you get a real perspective on the frailty, the transience, even the insignificance of human life (both as individuals and as a species). The record of the rock tells a story of whole continents, adrift like flotsam on the surface of the ball of spinning molten liquid we call Earth. A story of the Earth’s crust being torn apart, and then slammed back together again, and of seafloor and fiery islands being forced deep beneath the crustal rocks. Of abyssal seas and shallow lagoons and winding river deltas, of windswept plains and steaming jungles and soaring mountains—all written in the rocks. And then the very slender, delicate dust layer atop all of that rock that is us. All of us. All of us that have ever been. It can be sobering. It can be humbling.

And yet. The glory of it all is that, unlikely as it sounds, we are part of the story that the rocks tell, that we are not separate from the rocks. Like the stromatolites and the trilobites, like the countless calciferous organisms that built the Redwall, like the bighorns and the condor, humans are part of the story of the canyon. A small part. A very small part. But that is what made the Canyon and the Earth what it is and what it will be—small parts. Grains of sand, silt,

gravel, raindrops, snowflakes, tiny skeletons and shells. Whatever our egos and our philosophies may tell us, we are only as significant as raindrops and grains of sand, not more so, but incredibly, not less so. I suppose in time—or in Time—mountains will crumble and seas will rise, rivers will shift course, cities will fall. And there will be rock layers here and there about the globe that will hold paragraphs written in the stones on canyon walls of our brief chapter within a magnificent Story that goes on and on and on.

Barry Read



John Bryant Baker

Dip and Rise

THE DAY'S FIRST LIGHT graces the highest point on the canyon wall and slowly begins to work its way down towards the river, illuminating layers of rock and time in the process. Shadows bend and morph by the minute, revealing unnoticed pockets

and dimensions, a single sandstone wall becoming many as I drift by and gaze upon its array of intricacies. Droplets of water fall off the outstretched oars as they methodically dip and rise, dip and rise, dip and rise. The rhythm of them lapping the water is my morning music, my mantra, my prayer. Like holy words repeated over and over again, they still my mind and center my soul. Birds flutter and chirp, and in between spans of tranquility, the river narrows, tumbling over rocks and boulders. Waves build and break. Currents swirl and boil in a seemingly chaotic mess of froth and white. It is written here in the turbulent mess, in the wild and the wet, the language older than time itself. For it is said that even before night and day, before heavens and earth, there was simply water and spirit. We float along, listening to this language, reading the water. Treading only along currents that invite us, we are careful to heed the warnings of other paths. The river speaks to us, and by listening we are connected to it and to the beginning. We travel deeper into the heart of this place, and in doing so travel deeper into ourselves. In side canyons we rediscover the awe and wonder of childhood, exploring and laughing and losing ourselves, existing only in the moment at hand. In others, we find ourselves overwhelmed by emotions we had stored in our own narrow, deep, hidden place. The language of water is now written on us as tears make their way down our face. We sketch images. We write words. We take photos. We sit and stare and breathe deeply. We do whatever we can to hold onto this place. Though some of us shall return and others never again, we all know there will be times we will long to look back and to remember vividly in hopes of resurrecting these feelings again. There were moments we felt strong, when we pushed ourselves, and others when we simply faced the challenge we had no control over. Staring up at moonlit canyon walls and a sliver of stars overhead, we realized our smallness and became comfortable in it. We shared stories and laughter. We celebrated the days of our birth, and professed our commitment and our love. We listened and looked each other in the eyes. We connected. And maybe in the end, that is the greatest gift of this grandest of canyons. It inspires and encourages connection, with each other, with ourselves, with the waters and the world around us. Here, we awake expectantly. We look forward to that first morning light, excited for the places it shall reveal. We listen for the soothing rhythm of oars as they kiss the water's cheek, whispering holy words as they dip and rise...dip and rise...dip and rise.

John Bryant



Fall Rendezvous 2015: Celebrating Community in Style

CARAVANNING ENDLESSLY down the dusty House Rock Valley Road, then bumping gingerly down the last rocky stretch we were richly rewarded by one of the most outstanding viewpoints imaginable, Buck Farm Overlook. About 25 lucky river runners and speakers came together over the October 3–4 weekend for GCRG’s annual Fall Rendezvous to camp, hike, and learn about the archaeology, geology, history, and protection issues facing this area. We were blessed by perfect weather, a glorious sunset, great food, and newfound friends, surrounded by a 360 degree vision of absolute loveliness—the Colorado River flowing far below us with the Echo Cliffs in the distance, the Kaibab Plateau and Saddle Mountain Wilderness on one side and the Vermillion Cliffs on the other.

From examining remnants of early dwellings, pot sherds, and check dams made by Native Americans hundreds of years ago to conducting a small service project in order to better protect a fragile arch site near the Saddle Mountain Trailhead, most of Saturday’s activities were spearheaded by our former board member and archaeologist/river runner, Greg Woodall. On Sunday morning, legendary geologist

Peter Huntoon helped us wrap our coffee-fueled brains around the reason why the river meanders so distinctly in this area; historian Richard Quartaroli regaled us about the Marble Canyon Dam Site and the fascinating history behind the dam fights; and Roger Clark from the Grand Canyon Trust spoke eloquently about the need to better protect the lands surrounding Grand Canyon and the new strategy for doing so (please read more about it in on page 23 in this BQR).

The Fall Rendezvous ended with a fun hike out to the Triple Alcoves and Point Hansboro viewpoints. Munching on our lunches while perched on the edge and marveling at the jaw-dropping vista, we watched the rain moving slowly towards us in a misty veil worthy of an atmospheric Thomas Moran painting. A perfect ending to a perfect weekend.

GCRG extends our sincerest thanks to all of our outstanding speakers for sharing their knowledge and unbridled enthusiasm for the area with our group. We also want to give a hearty shout-out to Greg Woodall, Ben Reeder, Laura Fallon, Latimer Smith, and all the guides who pitched in to help with the Fall Rendezvous in so many ways. Lastly, many thanks to Colorado River and Trails (CRATE) who gave us some



of the food we needed as well as the use of their river kitchen and other equipment, and to Arizona Raft Adventures (AZRA) for their coolers. Just as on any river trip, it takes a healthy dose of cooperation and a positive attitude to make things run smoothly.

What GCRG's Fall Rendezvous event boils down to is celebrating our river community in its truest form—our deep love affair with the outdoors, our insatiable desire to explore new places and learn new things. Please join us next year for another grand adventure!

Lynn Hamilton



Photos: Hakatai Images



Tales From the Truck— A Bad Day in Badger Falls

IT WAS THE SECOND WORST day of my life so far. A slow motion nightmare that took ten hours to wake up from. It was April 20TH 2014, 3 P.M. The day I got an S-rig stuck in Badger Rapid.

I had run low water in the Grand Canyon the year before with Dewey Moffat. Neither one of us had seen that little water before—down to about 6,000 CFS. We were both looking at the water as if snipers would surface and machine gun off our lower units of our motors. But, neither of us ever hit a rock that trip. This time around, I was running with John Toner. I thought this would be easy, that I could just watch and follow him. It was a little lower, 5,500 CFS this year.

Entering Badger, I was paying attention and ready to follow the line laid out for me. What really happened was, I thought I was going where Toner was going—and I was wrong. On my boat were some good old boys from Colorado, a Canadian couple who were avid backpackers, a couple from California who had never been rafting or camping, and a few other folks I can't exactly remember right now. What I do remember is my lucky choice of swamper, my good buddy Sean Hines who guides fly-fishing near Driggs, Idaho.

I saw Toner enter Badger left, then move right into the tongue. I seemed to follow but saw rocks sticking way out of the water by three feet, or so. I began motoring hard to get back right when I felt my motor tap lightly—still at the top of the rapid. I pulled the motor out and prayed, hoping that my ferry angle right carried enough momentum to get clear of the boulder pile below. Most of my boat made it, but the heaviest part stuck right under the big cooler under the back frame. The boat suddenly lost momentum and pivoted on its new fulcrum to wedge the front of the boat against another big rock out of the water.

It took Toner a minute to realize that I wouldn't be finishing the rapid anytime soon. I took the

opportunity to tell my new friends that we wouldn't be going anywhere fast, and that our predicament wasn't likely to hurt anyone physically if we all stayed calm. I handed out snacks and filled water bottles while people took in the unique perspective of sitting still while the water rushed past. When Toner appeared on the shore and saw we had gone from plan A, B, C, straight to F.M.L., he went to grab ropes. Sean and I



began thinking of ways to get a rope across. It was about 100 feet. I threw a throw rope, which made it exactly half way. I tied two together and couldn't throw far enough. By then Toner was sitting as far out into the current as he could get, and shrugging his shoulders. Sean said, "I can cast a fly out that far." So he put his rod and reel together and began pulling out line as he cast. And *whap*—he hit Toner right in the chest. That's how we got the line across.

We tried using a come-along, pulling from the anchor that Toner built on shore, and by changing the attachment point to the boat to achieve a different angle of pull. For a couple of hours we tried every approach, while attempting to bounce loose as we jumped in unison on the trapped boat. At one point, the couple from California asked what we would do next. I told the woman we were just going to keep trying, until we were free and floating downstream we were just going to try everything. The middle chamber of my boat had suffered a pinch flat between the frame and had lost air. The frame was now digging into the water. I switched the pulling point to the back corner of the frame opposite the shore we were pulling from. Three and a half hours into the rescue and from this new anchor point the boat finally moved, and moved a lot. It went from the front of the back frame, all the way to the back corner of the frame, caught up on the weld that held the strap. We were ten minutes and five inches from freedom when I heard the helicopter rotors whapping against the canyon walls. I remember thinking this was it. For sure I was going to be fired.

And no one would be willing to hire me. I thought that if I could just get off this rock, I could enjoy every last minute of this trip, savoring every second in the Canyon.

The helicopter landed and rigged a short-haul and soon we had the finest rescue squad a floundering boatman could ever wish for. We rigged full-body harnesses on two passengers at a time and sent them to shore. The good-old-boys from Colorado were suddenly not so tough. The Canadians pretended like they were swimming through the air, or flying, but would continue to say it was the highlight of their trip. The Californian's were pretty graceful. Then it came to Sean and I, and I said I was staying with the boat. He told me I would be sleeping here by myself, so I chickened out and flew to shore. As it got dark, I was pretty happy with that decision.

Toner had camp set up, and was cooking fish. But before it was finished I saw Art Thevinen walk down the beach towards us. He and Walker Mackay drove my sportboat, the *Hayduke Lives!* down from Lees Ferry to give us a hand. I felt an immense sense of relief but knew we had some work to do. It was getting dark, and that water felt pretty cold in April.

We were waist deep until about one in the morning, and trying everything before we got that boat to pull, just before the water dropped. The key was to combine a Z-drag to the come-along on a vector pull, and using the prussic to maintain our progress while we reset the come-along. It was now hanging free into the darkness of the night and the roar of the rapid. Coordinating with Walker and Art, I jumped on the other S-rig with Toner and we pushed off in the eddy below to catch the boat. Walker cut the line and sent my boat into the night. Toner did an amazing job driving both boats into shore while I jumped from his boat to mine to man the motor just in case. At camp the feeling of dread started to deaden, as exhaustion set in. But we had work to do, and a boat to patch.

We started de-rigging the back frame. Because there wasn't enough people on the trip to lift the main cooler out—sleeping or not—we lifted out ice block by ice

block, tomatoes, cucumbers and peppers one by one to shore so we could slide the frame back by one foot. By the time the patch was laid it was 3 in the morning and we went to bed knowing we would still have a river trip. Two hours later we woke up and went back to work, some of us cooking breakfast, some re-rigging my boat. We pushed off the shore at 9:30 like nothing had happened, an hour behind schedule on a 11 day hiking trip. Throughout the ordeal our passengers had been positive and supportive. The biggest worry from one of them was, "Does this mean we won't be able to do the up and over Thunder River hike?"

I learned a lot from this experience. One, to always be paying attention to my own line as I know it already. Two, always stay calm, it's probably going to be ok—no situation ever gets better from panicking. Three, what would you wish to be carrying in a situation like this? What would I do without Sean there? We now carry big sling-shots to carry a line far distances. And rope. How long of rope do you carry? How much sun and sand has that rope seen? The only rope long enough that we had to work with, and what pulled the boat off the rock in the night was an 8 mm chord that had never been exposed to the elements. I now carry a 150-foot length of new rope that is 10 mm thick.

I thought I would be fired but wasn't. The only thing the owner of my company Dave Mackay said was, "I bet you learned something." In fact, no boatman ever gave me any grief at all. Guides have asked me about the ordeal, only to follow with their own stories of mishaps. Besides, most had already seen the footage anyways. Before I had even gotten off the trip YouTube had 5,000 hits of the footage from the recovery. I feel lucky to be accepted into this guiding community despite my mistakes. And I still appreciate each moment in the Canyon as if it was my last.

Ben Reeder



Looking downstream at sandbars deposited by the November 2012 controlled flood on the Colorado River in Marble Canyon. Photo: Paul Grams, USGS

Building Sandbars in Grand Canyon

Annual controlled floods from one of America's largest dams are rebuilding the sandbars of the iconic Colorado River.

In 1963, the U.S. Department of the Interior's Bureau of Reclamation finished building Glen Canyon Dam on the Colorado River in northern Ariz, 25 kilometers upstream from Grand Canyon National Park. The dam impounded 300 kilometers of the Colorado River, creating Lake Powell, the nation's second largest reservoir.

By 1974, scientists found that the downstream river's alluvial sandbars were eroding because the reservoir trapped the fine sediment that replenished the deposits during annual floods. These sandbars are important structures for many kinds of life in and along the river.

Now, by implementing a new strategy that calls for repeated releases of large volumes of water from the dam, the U.S. Department of the Interior (DOI) seeks to increase the size and number of these sandbars. Three years into the "high-flow experiment" (HFE) protocol [U.S. Department of the Interior, 2012], the releases appear to be achieving the desired effect. Many sandbars have increased in size following each controlled flood, and the cumulative results of the first three releases suggest that sandbar declines may be reversed if controlled floods can be implemented frequently enough.

HARNESSING THE WATER AND SEDIMENT OF THE COLORADO RIVER

The 220-meter-high and 480-meter-wide Glen Canyon Dam has dramatically altered the 425-kilometer segment of the Colorado River that runs from the dam to Lake Mead, the nation's largest reservoir, at the western end of Grand Canyon National Park (Figure 1). Within Grand Canyon, and especially its upstream end, known as Marble Canyon, the dam has eliminated fine sediment once supplied from the upstream Colorado River basin, decreased peak flow volumes and magnitudes, increased low-flow magnitudes, and caused daily discharge fluctuations that generate hydroelectric power.

Collectively, these changes reduce both the size



Figure 1. Map of the Colorado River between Glen Canyon Dam and Lake Mead, Ariz., showing sandbar and streamflow monitoring sites.

and number of the river's sandbars [Dolan *et al.*, 1974]. Sandbars, which occur primarily in eddies downstream from rapids, provide flat ground for camping and for backwater habitat used by native and introduced fish. They also support vegetation and supply fresh sand to dune fields that bury and protect important archeological sites.

In 1996, scientists started experiments to learn how best to rebuild eroded sandbars. Many of these experiments involved releasing controlled floods through the hydroelectric turbines and facilities that bypass water around the turbines. These releases, known as HFE's, are about half the magnitude of the average predam spring flood and last three to eight days, which nevertheless amounts to two to three times the amount of water normally released from the dam over a given period of time.

FLOOD SCIENCE

The first controlled flood occurred in 1996. This release demonstrated that sandbars grow rapidly during the first few days of a flood, and that much of the deposition is eroded within six to twelve months by normal dam operations [Webb *et al.*, 1999]. The most important scientific finding of the 1996 flood was that sand supplied to the Colorado River by tributaries experienced short residence times, as evidenced by declining sand concentrations during the release [Rubin *et al.*, 2002]. These findings revealed the importance of timing controlled floods to occur shortly after flash floods from major tributaries deliver sand to the Colorado River.

Scientists and resource managers tested this paradigm by releasing controlled floods in 2004 and 2008 after seasonal thunderstorms triggered a series of large sand inputs via tributaries. These floods elevated suspended sand concentrations in the Colorado River and deposited large eddy sandbars.

The evidence from these experiments indicated that releases timed to follow sand inputs, as suggested by Rubin *et al.* [2002], are, in fact, an effective sandbar-building strategy [Schmidt and Grams, 2011].

TOWARD A FLOOD PROTOCOL

Insights gained from the 1996, 2004, and 2008 controlled floods [Schmidt and Grams, 2011] and from scientists' understanding of the river's sand budget [Wright *et al.*, 2008] allowed scientists and resource managers to develop the current HFE protocol. DOI now schedules controlled floods depending on sand accumulation in Marble Canyon, the 100-kilometer river segment downstream from the Paria River. This river is the first and most important sand-contributing

tributary downstream from Glen Canyon Dam.

Scientists compute sand accumulation as the difference between tributary sand inputs and sand export from Marble Canyon. Using this computation, resource managers aim to release controlled floods to redistribute the accumulated sand from the bed of the river to sandbars along the banks.

Although the protocol is conceptually simple, implementing it involves several science and policy challenges:

- tracking sand influx from tributaries and transport downstream by the Colorado River,
- computing in-channel sand storage,
- predicting sand flux for potential controlled floods,
- scheduling potential controlled floods in a way that does not disrupt regional water supply and hydropower demands, and
- evaluating the effects of each controlled flood before triggering the next one.

Wright and Kennedy [2011] proposed a strategy to meet these challenges by coupling field measurements with stream flow and sediment routing models. The protocol roughly follows this strategy.

TIMING FLOODS TO MAXIMIZE BAR BUILDING

To time controlled floods for maximum sandbar-building effect, U.S. Geological Survey scientists continuously monitor sand flux at the downstream end of Marble Canyon using acoustic instruments calibrated to conventional sampling of suspended sediment [Griffiths *et al.*, 2012]. Scientists also make initial estimates of sand inputs from Paria River floods within 24 hours of each event using a model based on observed correlations among discharge, sand concentration, and sand grain size [Topping, 1997].

Scientists adjust model estimates and reduce uncertainty by measuring sand concentrations and particle sizes in water samples collected in the field. They use this combined modeling-sampling approach because sand concentrations in the Paria River are too high for other techniques, such as acoustics, to work reliably. The data and tools that implement the model to compute Paria River sand inputs are available to water managers, stakeholders, and the public.

As the sediment input season progresses, engineers from the Bureau of Reclamation use the sand routing model of Wright *et al.* [2010] to predict sand export from Marble Canyon for different possible controlled flood scenarios. Scientists have calibrated and verified this empirical model specifically for Marble Canyon, based on water discharge and sediment grain size.

The modeling process is iterated to identify when,

how much, and for how long water must be released in a controlled flood to export approximately the same amount of sand as was supplied by tributaries during the input season. The goals of this strategy are to build sandbars by mobilizing the recently accumulated sand and to avoid eroding older sand deposits.

Dam operators then schedule the release of a controlled flood from Glen Canyon Dam to match the flow magnitude and duration identified in the modeling process.

EVALUATING FLOODS

Scientists and managers use a combination of photographs and repeat topographic surveys to evaluate the short- and long-term effects of the controlled floods on sandbars. A network of remote time-lapse cameras at 43 sites distributed throughout Grand Canyon capture daily changes in sandbars that show the immediate effects of each controlled flood.

Scientists also use the photographs to semiquantitatively categorize sandbars into groupings of sites that show deposition, erosion, or no significant change. They provide these data to managers shortly after each release.

Researchers survey the topography at many of the same study sites annually to quantitatively estimate trends in sandbar area and volume [Hazel *et al.*, 2010]. Thus, the topographic surveys provide precise measures of sandbar response, and the photographic monitoring provides timely data before and after every controlled flood.

LIMITING THE FLOW

The Colorado River ecosystem downstream of Glen Canyon Dam is not the only resource relying on Lake Powell's water. The dam produces a significant amount of hydroelectric power, and releasing long-duration, large-magnitude floods could affect the capacity to generate power later.

DOI caps the controlled flood volume at the maximum flow rate that can be attained with all of Glen Canyon Dam's powerplant turbines and the full capacity of the dam's bypass tubes (1274 cubic meters per second). DOI also caps the duration of releases greater than powerplant capacity (~890 cubic meters per second) at 96 hours, to limit the loss of potential future power generation associated with bypassing water around the turbines.

With sufficient sediment, higher releases would likely build larger sandbars, but such releases would require using emergency spillways, and are outside the scope of the HFE protocol. Whenever river managers implement controlled floods, they also reduce

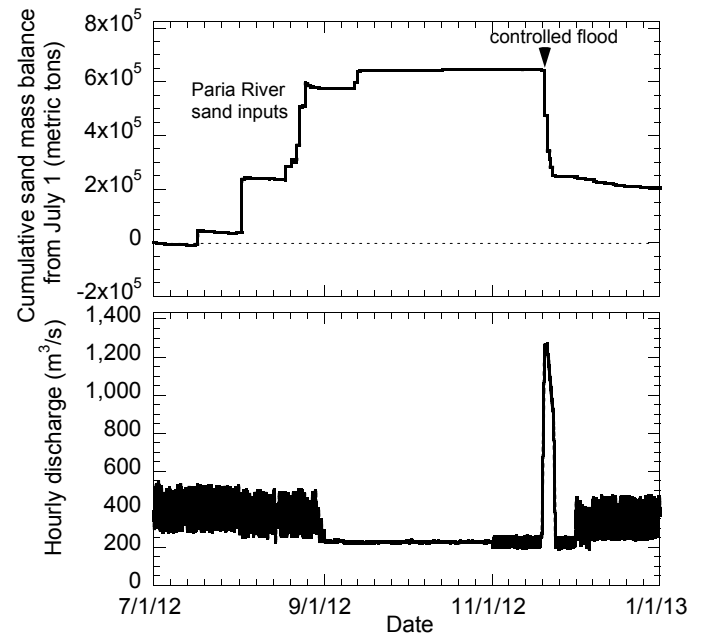


Figure 2. Sand budget for the 2012 sediment accumulation period and controlled flood in November. The graphs show the observed cumulative sand mass balance for the Colorado River between Lees Ferry, Ariz., and the confluence with the Little Colorado River, 98 kilometers downstream (top), and observed streamflow of the Colorado River at Lees Ferry (bottom). Floods from the Paria River caused sand accumulation between July and October. The controlled flood exported approximately 58% of the accumulated sand from Marble Canyon.

reservoir releases in other months to keep the annual volume of water released from Lake Powell consistent with the agreements established among the users of Colorado River water. Controlled floods can be released following either summer/fall or winter sand-supplying floods in tributaries.

TESTING THE PROTOCOL

In the period from July to October 2012, just three months after DOI adopted its HFE protocol, Paria River floods delivered $690,000 \pm 117,000$ metric tons of sand to the Colorado River. In October, managers made a preliminary estimate of that sand flux and used it in the sand routing model to develop and schedule a controlled flood (see Figure 2). Paria River sand inputs in 2013 and 2014 were 2.8 and 1.8 times larger, respectively, than those in 2012, allowing managers to release additional controlled floods.

Sand inputs were more than enough to support the release of the maximum discharge and duration allowed under the protocol, but operators could not release more than 1050 cubic meters per second because some turbines were shut down for maintenance. Because these infrastructure issues

limited the maximum release, these controlled floods exported from Marble Canyon less than 60% of the sand delivered in 2012, and less than 30% of the amount of sand delivered in 2013 and 2014. In each case, the *Wright et al.* [2010] model has been a valuable tool for managers, because it has provided a rational basis for designing controlled floods that make efficient use of the sand supplied by tributaries.

Although resource managers have not yet established quantitative goals for sandbar rebuilding, they consider the 2012–2014 results encouraging.

THE COLORADO RIVER'S UNCERTAIN FUTURE

The success of these initial controlled floods does not guarantee that sandbars will continue to grow. Sandbars erode between each controlled flood. Thus, the long-term effects of the HFE protocol depend on how Colorado River runoff, operational decisions about releases from Lake Powell, and seasonal precipitation in the Paria River and other tributary watersheds affect the ability of dam operators to continue implementing controlled floods. Future sediment inflows from tributaries are highly uncertain because they depend heavily on flash floods triggered by rainfall associated with intense seasonal thunderstorms, which deliver a large fraction of the Southwest's rain.

Current climate change models cannot reliably predict how seasonal thunderstorm activity will change in the future. A succession of high-snowpack years or operational decisions to transfer water storage from Lake Powell to Lake Mead could also result in large releases of clear water that typically cause sandbar erosion; indeed, such releases occurred from 1996 to 2000 [*Mueller et al.*, 2014] and in 2011. In these

conditions, sufficient sand accumulation to trigger controlled floods is unlikely.

However, almost all climate change projections predict increases in temperature and decreases in Colorado River runoff [*Vano et al.*, 2014]. With recent annual releases equal to or lower than releases from 2000 to 2010, the HFE protocol is likely to increase sandbar size and allow more sand to be retained in Marble Canyon, as anticipated by *Wright et al.* [2008].

BALANCING GOALS

In this uncertain future, balancing ecosystem goals with growing needs for water and power will continue to be a challenge for society. The HFE protocol is one approach to meet some of those challenges.

Through the incorporation of scientific research, technological advances in monitoring capabilities, and the best available models, scientists and resource managers have developed a strategy that is both flexible and coupled with ecosystem drivers such as runoff and sediment delivery. While long-term success cannot be predicted, the early results of HFE's attempts to maintain Grand Canyon's sandbars show promise.

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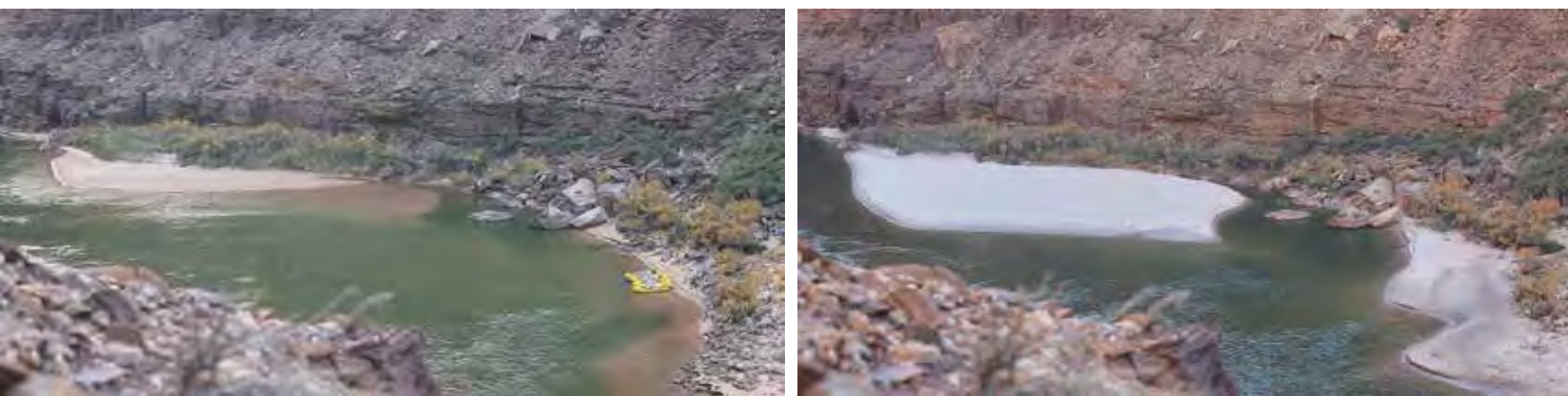


Figure 3. Photographs showing deposition caused by November 2012 controlled flood. The sandbar is 105 kilometers downstream from Lees Ferry, and the view is looking downstream. These and additional photographs depicting the results of the recent controlled floods can be viewed in an album of the Grand Canyon Monitoring Research Center. Credit: USGS

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NOTE:

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The original article can be found at: <https://eos.org/features/building-sandbars-in-the-grand-canyon>

FYI



Long Term Experimental and Management Plan (LTEMP) EIS Tentative Schedule

- January 2016 - Draft EIS released to the public for comment (90 day comment period)
- February 2016 - Public meetings in Flagstaff and Phoenix during the week of Feb 22nd plus a public webinar

Sign up for important updates and announcements on the official LTEMP website, <http://ltempeis.anl.gov>

If you're not on GCRG's email list, let us know so we can keep you dialed in! Contact us at gcr@infomag.net

Greater Grand Canyon Heritage National Monument

LAST FALL, Arizona Congressman Raúl Grijalva introduced the Greater Grand Canyon Heritage National Monument Act. Written with Havasupai, Navajo, and other tribal leaders, the bill would eventually end uranium mining on public lands bordering Grand Canyon National Park. The new national monument would further protect sacred lands and ecosystems on approximately 1.7 million acres of public lands that are integral to Grand Canyon National Park (please see map).

Congressman Grijalva recognizes that there's little chance for passing the bill. However, he notes that the legislative language is written expressly as a template for a presidential proclamation of the new national monument, under authority of the Antiquities Act.

SUMMARY OF THE PROPOSED MONUMENT

The purposes of the Greater Grand Canyon Heritage National Monument are “to preserve, and if necessary, restore” the following:

- native, cultural, sacred lands and key tribal resources
- nationally significant biological, ecological, cultural, scientific and other values found in the Grand Canyon, including, above ground tributaries, springs and interconnected groundwater.

The new national monument *would*:

- Make the 20-year ban on new mining claims permanent, which the Secretary of the Interior ordered in 2012 to protect the Grand Canyon's unique ecological, cultural, and recreational values.
- Require federal land managers to complete the new monument's management

plan within three years and allow for an open, public process as set forth in the National Environmental Policy Act. It would include a more collaborative working relationship with tribes and consultation with other governmental agencies and the general public.

- Direct the Interior and Agriculture secretaries to establish an Advisory Council “to oversee and



Map of the Greater Grand Canyon Heritage National Monument



AZ Congressman Raul Grijalva announces the Greater Grand Canyon Heritage National Monument at the Museum of AZ on October 12, 2015. Standing (l-r) are Havasupai cultural leader James Uqualla, Hopi Tribal Vice Chairman Alfred Lomahquahu, Jr., Navajo Vice President Jonathan Nez, Navajo President Russell Begaye, and Havasupai Councilwoman Carletta Tilousi.

Photo credit: Blake McCord.



Dine river guide Nikki Cooley testifying in favor of banning uranium mining before congressional field hearing chaired by AZ Congressman Raúl Grijalva at Grand Canyon's Shrine of the Ages on April 8, 2010. She is flanked by Bill Hedden, Executive Director of Grand Canyon Trust. Photo credit: Amanda Voisard.



Havasupai Tribal Council member Carletta Tilousi testifying at congressional field hearing chaired by AZ Congressman Raúl Grijalva at Grand Canyon's Shrine of the Ages on April 8, 2010. Photo credit: Amanda Voisard.

collaborate on the management of tribal sites, artifacts, ancient trails, burial sites, and resources.” The council would include two representatives from each of the eleven associated tribes, as well as seats for the Arizona Game and Fish Department, an anthropologist, a scientist, and representatives from the sportsman and environmental communities.

The Greater Grand Canyon Heritage National Monument will continue to be managed under existing laws, consistent with the monument’s purposes. The monument proclamation *would not*:

- Affect existing and historical uses, including water rights;
- Close mines or claims with valid existing rights; or
- Change rules on hunting, grazing, logging, recreation, private and state inholdings, leases, or commercial uses.

BACKGROUND

When the price of uranium soared nearly a decade ago, prospectors filed thousands of new uranium claims on the Tusayan District of the Kaibab National Forest and the Arizona Strip District of the Bureau of Land Management. In 2008, Congressman Grijalva introduced another bill called the Grand Canyon Watersheds Protection Act. Its purpose was also to ban new uranium mines by withdrawing those public lands “from location, entry, and patent under the mining laws.”

Ultimately, a 20-year moratorium was proposed on new Grand Canyon uranium claims and supported by a coalition of tribes, businesses, cities and counties, the governor, state agencies, and millions of voters.

Ranchers and hunters aligned with river-runners and bird-watchers—all united to stop uranium mining from permanently polluting the Grand Canyon and undermining the region’s tourism-driven economy.

That temporary withdrawal was made in 2012 after a two-year evaluation by five federal agencies. It found that uranium mining poses risks to underground aquifers that feed canyon springs. The U.S. Geological Survey reported that mining has already polluted fifteen springs and five wells within the Grand Canyon’s watershed. Uranium mining also threatens cultural areas held sacred by all native people of the region. The assessment found that “the entire area is recognized as the traditional homeland and use area for seven tribes [and] that continued uranium mining will result in the loss of their functional use” of it.

Four years later, the National Mining Association and Nuclear Energy Institute are still suing in federal court to overturn the 20-year moratorium. Congress remains gridlocked and unable to pass legislation to make the temporary ban permanent. And time is running out for this president to proclaim the area as a national monument. Withdrawal under the Antiquities Act provides the only remaining option for protecting Grand Canyon from future uranium mining.

“One of the complaints you hear from members, particularly on the Republican side, is the president shouldn’t use his executive authority, that this is something we should do as law,” Grijalva told *The Arizona Republic*. “Well, you’ve got a law in front of you...At some point, if the lack of response by the Republicans...continues, then obviously the appeal is to the president to consider this legislation for a presidential designation of a monument.”

Grijalva’s currently proposed bill has little chance



Havasupai and Hualapai leaders engage tourists in a round dance on the South Rim to unify in opposition to Grand Canyon uranium mining. April 8, 2010. Photo credit: Amanda Voisard.

of passage due to opposition by pro-mining lobbyists and their paid politicians. But President Obama can proclaim the area as a national monument, and thereby make the 20-year ban permanent.

AN UPHILL BATTLE

Congressman Grijalva, Havasupai leaders, and many others have long sought tougher restrictions on Grand Canyon uranium mining. The 1872 Mining Law permits prospecting on all public lands until Congress or the President withdraws that permission. Existing mines and validated claims, where ore samples of sufficient quality and quantity can be documented, are exempt from most withdrawals.

“Canyon” uranium mine near the South Rim, for example, is one of several preexisting mines that are unaffected by the 2012 ban on new claims. Attorneys for the Havasupai Tribe, Grand Canyon Trust, and allies are challenging the U.S. Forest Service for allowing it to reopen without renewing and updating its 1986 operating permit. They have also petitioned federal agencies to require monitoring wells and other reasonable upgrades in regulating existing mines.

Meanwhile, the Antiquities Act is under attack for, allegedly, “locking up” federal land. Utah Congressman Rob Bishop called it “the most evil Act ever written.” Arizona Representative Paul Gosar is sponsoring a bill to block President Obama from using the Antiquities Act to prevent new uranium mines from further polluting the Grand Canyon. He said: “I will not sit idle while extremist environmental groups...try to ruin the state I love.”

Under similar circumstances, President Theodore Roosevelt proclaimed the first Grand Canyon National Monument in 1908. His decision angered miners, who

believed that it would ruin their lock on revenues, mined from federal lands acquired during the Mexican Cession of 1848. They and their politicians fought Grand Canyon’s designation as a national park until 1919. But today, the park and its surrounding public lands are still under siege by the same, short-sighted, special interests.

Protecting Grand Canyon’s natural and cultural heritage has always been an uphill battle. “Every fifteen or 20 years, it seems, the canyon forces us to undergo a kind of national character exam,” said author Kevin Fedarko. “If we cannot muster the resources and the resolve to preserve this, perhaps our greatest natural treasure, what, if anything, are we willing to protect?”

TAKE ACTION

We have only a few months left to persuade the president to proclaim the Greater Grand Canyon Heritage National Monument. Please mail your letters of support to:

Christy Goldfuss, Managing Director
White House Council on Environmental Quality
722 Jackson Place, NW
Washington, DC 20503

In addition, please write your elected representatives to request their support. You can also participate in online petitions and stay informed by visiting grandcanyontrust.org, grandcanyonwildlands.org, and websites hosted by national conservation organizations.

Roger Clark

George Wendt

IN 1965 I WAS AT THE MOUTH of Warm Springs, up in Dinosaur National Monument. We were floating down the Yampa River in early June and we had a Folbot [*collapsible kayak*] on the trip. My friend Bruce Julien and I were portaging the Folbot around a real small rapid at Warm Springs that we had run the raft through; it was caused by some debris that had fallen off the canyon wall there. It was probably about a three on a ten point scale. And while we were portaging, it was raining pretty hard. So we found this old log cabin there that was dug about three feet into the ground, and extended up about another three feet above ground...this old cabin had signs of having been used certainly back to the 1930s. We found part of an old newspaper in it with a date on it, and part of an old Sears and Roebuck catalog. Finally, Bruce said, “George, it’s just going to keep on raining, why don’t we go on down to camp?” So we left the cabin. Within a half hour after we left it, we slowly became aware that there was a dull roar, sounding like continuous thunder, like a freight train just rumbling by. But it just didn’t stop. We were about a thousand feet below the mouth of the creek at this point. So we didn’t see the dramatic issuance from the creek when it first happened. But it continued for quite a long time. Just a monumental amount of muddy water and a heavy burden of boulders came out of the mouth of the canyon. The little cabin where we had been was totally obliterated, along with the small forest that had been there for fifty, or a hundred, or two hundred years; since the last debris flow. And those trees were all totally removed. We could not find where the cabin had been within a hundred feet of its location, because the fan was at least three hundred feet wide at the mouth, with boulders anywhere from one foot in diameter to six feet in diameter. That flood made the major rapid, Warm Springs, which was certainly a number ten on a ten point scale.

The next day the first group through was Western River Expeditions and they portaged their ten-man around it. They did run their pontoon successfully. The next group through, which was the Hatch trip—with the guide without his lifejacket—he was thrown out of the raft and drowned.

As we went upstream above the rapid the next day it was obvious there had been a major occurrence there because a new line of silt, from a temporary reservoir storage, extended quite a ways upstream of the new debris fan. There was this muddy horizontal line where water had been impounded behind this

new rapid when it had occurred the previous evening. To the best of my recollection the orange sign, used to say, “Danger, Rapid.” That sign was removed by this occurrence.

So that was very exciting and I just wish I’d had a camera with a wider aperture, because all my slides were taken with a 3.5 lens opening. Had a little bit of blurriness because I was trying to hand hold it at a fairly slow speed. We realized that we could not only have been killed there, this was also a flash flood of major historical significance.

STEIGER: And you guys had moved just an hour before?

WENDT: Probably less than a half hour before. Not because we thought there was any impending danger. But just because we were already wet. It didn’t make any difference to be out in the rain a little bit longer. But we were safely *below* the mouth of the creek when the flash flood actually occurred. There had probably been a landslide up the creek that had impounded a lot of water. And when that finally broke loose it had enough momentum to bring a tremendous amount of boulders downstream into the Yampa.

That trip, actually, we finished one day before we got on [*my first trip through*] Grand Canyon. We drove all night from the take out there at the junction of the Green River with the Yampa, and got on the Grand Canyon with Hatch the next day, June of 1965.

* * *

George Wendt is the founder of OARS—arguably the most diverse and widespread commercial river running company ever. He was also a founding partner of Sobek Expeditions, which ran first descents of rivers all over the world. (The Bio-Bio was his idea, initially brought to him by a park ranger cousin of his).

This interview began in September of 1994 and was completed in January of 2014 as part of the Adopt-a-Boatman program. —LEW STEIGER

* * *

I grew up in Southern California. I was born in 1941, so I have World War II memories, very formative memories. I lived in a nice area, Pacific Palisades. My parents bought the house for \$4,000, nicely furnished. Some of that furniture is still being used in the house today. I was fortunate to join a great Boy Scout group, which had a major influence on my outdoor

experience. I learned how to swim in the Boy Scouts. I didn't know how to swim until I was probably eleven years old. I went on through University High School, which was one of the best academically inclined schools in the country back in the fifties... When I was a ninth-grade student in Los Angeles, for some reason the principal invited two guys to come and speak to the students in assembly. It was the two guys who had swam through the Grand Canyon: Bill Beer and John Daggett. As a ninth-grader, age probably fourteen, I was very much in awe of that story. Although it didn't set me on a course of action that led directly to the Grand Canyon, I'm sure that's where the idea planted itself in my young mind.

I went to Santa Monica City College for my first two years of college, and then went to UCLA where I joined the Bruin Mountaineers, and that led me eventually into river rafting.

The Bruin Mountaineers was an informal group of students with outdoor interests, including rock climbing and caving. There was a guy who was a little bit older than I was, named Frank Hoover, who sat on the lawn during lunch. Usually lunches went from at least eleven until one. Some people would come for eleven-to-twelve, others would come from the twelve-to-one-o'clock hour, and there would just be stories about these amazing experiences people had. Frank had been down Glen Canyon some years earlier. I don't know what his original trip context was, but he was working at UCLA Medical Center, and he was a little older than most of us. He said, "Hey, we're gonna do this trip in June," right after school is out in 1962, going through Glen Canyon, and "figure out a raft; we're gonna have a great ten-day trip." Another guy I knew at UCLA, Bruce Kuebler [*phonetic*], and I decided we'd build a raft made of inner tubes: two wide, two high, and three lengthwise, a total of twelve inner tubes. And we built a wooden superstructure on top of it. Then we realized we couldn't have gear just sitting on the top of the raft—it'd fall off, even in the little waves in



Sobek founders: George Wendt, Richard Bangs, John Yost.

Photo courtesy of George Wendt.

Glen Canyon. So we put some bracketing in to lash our gear down on top of, basically, a flat floating deck that we paddled through Glen Canyon.

We drove out to Hite and launched. A lot of dirt roads at the time. Of course Interstate 15 wasn't there, all the roads were two-lane roads at maximum. We got to Hite and launched our rafts, and it was relatively high water in early June. I think we floated twenty miles that first day, even though we put on after lunch. It was so much easier than the backpacking I'd done in the Sierra, I was just immediately captivated by the sense that "Wow, this is a magic carpet ride that transports us pretty effortlessly through an amazing wilderness." I guess I had seen Bryce and Zion as I was growing up, having driven with my parents and two brothers and a sister through those areas. But floating through Glen Canyon was just a beautiful experience. We did a lot of side canyon hiking, saw a lot of Anasazi Indian ruins, and it was an amazing experience.

I saw Georgie White down there. In retrospect I was really stupid. I was the only person on the trip—and I think there were about thirty of us on that trip—who didn't have a lifejacket. A lifejacket would have cost about ten dollars, and being a student, I didn't have a lot of extra money. I had heard this was a real gentle section of river, and by this time I knew how to swim, and I just didn't go the extra mile to get a life jacket. And when we met Georgie White at one point about halfway down the river, I went up and talked to her. She told us that just downstream there was a really big rapid, and "Boy, she sure wouldn't go down there without a lifejacket!" As it turned out, it was not much of a rapid at all, it was just a little riffle. But I didn't know how to read her, I didn't know she was joking with me. (laughter) So she put a little fear into my heart.

We found some amazingly deep canyons: Navajo Canyon and Twilight Canyon were these canyons that had large amphitheaters carved into the canyon wall, much like Redwall Cavern in the Grand Canyon. The flash floods over the years would carve out undercuts that would go hundreds of feet horizontally and under vertical rock that often would rise 1,500 feet in a fairly narrow vertical canyon. And it was just enchanting, with the moss and the ferns in these canyons. We hiked up to Rainbow Natural Bridge. But except for that one other group—and that was the commercial group we saw with Georgie White—I don't recall we saw anybody else in the canyon at that time.

We had about 40,000 cubic feet per second. Unbeknownst to me, that was high water, and I believe Georgie was running the trip with motorized pontoons, but I'm sorry to say I can't really remember for sure now.

STEIGER: Do you remember just how she struck you as an individual?

WENDT: (chuckles) She was somebody I had heard about, even at that time. I was probably twenty-one years old, and I was very much in awe of this person who had quite a reputation for running rivers around the West. I knew she ran trips in the Grand Canyon, and I guess I'd heard she'd run trips in Cataract Canyon, and so this was probably one of those trips that had the potential... I guess Glen Canyon Dam was being built in 1962, so there was no longer free passage past the dam site. But up until that time, she had actually run trips that went from Glen Canyon right on down Grand Canyon, as one continuous voyage down the Colorado River.

STEIGER: But the dam was already...? Were they pouring concrete and all that stuff?

WENDT: The wooden forms were in place—sure, the concrete was already poured at the bottom end of the dam. It was a work in progress at the time, but this was June of '62, and by the following January they were actually starting to impound water, if I remember correctly. And so the dam was far along. But I remember—and I have some pictures of it somewhere, showing a lot of the wooden structures still in place, that I assume were what they formed the concrete around.

Glen Canyon was this amazingly beautiful place. Starting in 1963, I began spending every moment I could away from school...and I had a job during the summer, so I didn't even have much time available during the summer, but for three-day weekends, we would drive from Los Angeles to the new rising water of Reservoir Powell, and we would paddle our early-day sea kayak, a German Hammer Folbot that we would paddle miles and miles around the shoreline of Lake Powell—not to paddle the shoreline so much as to explore the narrow side canyons, which unfortunately were being inundated by the rising levels of Lake Powell.

We had six of us—two of them who had been in the Boy Scout group I had been in—who would make these pilgrimages. We would often drive all night Friday night, get to Lake Powell Saturday morning, do a three-day trip, if Monday was a holiday; then leave there at five o'clock on the last day and drive all night to be back in Los Angeles in time for whatever we had to do the next day.

STEIGER: That's dedication! But I guess the motivation would be you had to do it now because this stuff was gonna get...?

WENDT: It was going to go under hundreds of feet of water. This was as the reservoir was just

starting to rise. And so we documented the canyons at progressively higher water levels, and many of the canyons had major jump-ups, things that we didn't have the rock-climbing skills to ascend from the bottom. Quite often we'd go back and the water level would now be forty feet higher, and we'd be able to paddle our Folbots into the back of these canyons. We would often have to chimney out of our kayaks because the canyon was so narrow we couldn't get all the way to the back of the canyons. And then chimneying out of the kayaks, we could move horizontally, feet on one side and arms on the other, fifty or a hundred feet to the edge of the rising reservoir levels, and then proceed to explore on foot until we'd come to another major jump-up.

STEIGER: Were there canyons that stood out for you in doing that?

WENDT: Hidden Passage, which was very close to Rainbow Natural Bridge, and Music Temple—Music Temple being a giant alcove very much like Redwall Cavern, except probably a little bit smaller. Hidden Passage was one of my favorites: this amazing deep canyon that wandered, curving back on itself, then meanders going—probably we went a mile up that canyon. Unfortunately, I didn't find out until after '62 about the *lower* canyons. The ones down closer to Glen Canyon Dam, which had names like Dungeon and Little Dungeon and Labyrinth Canyon, were some of the *really* spectacular deep slot canyons in the Southwest. There's still some slot canyons people have found in Zion and other areas around the Southwest, but Glen Canyon had a larger concentration of those very narrow slot canyons—where somebody could touch both walls of the canyon as they were walking up, while having the walls rise hundreds of feet above their head, getting progressively wider as they went up toward the sky. But many of the canyons actually were bell shaped in that they had a larger erosional pocket at the very bottom of the canyon, and then as you looked up, it would actually narrow down as a chimney as you looked skyward. So even midday some of these canyons were pretty dimly lit.

It was a major formative experience for me to see this amazing place going underwater. I guess I'd been very fortunate as I was growing up. I didn't know anybody, except maybe grandparents, who had died. I didn't have any tragedy in my life. And so not having experienced a friend's father dying, or really anybody that I knew—not suffering the wrenching loss of a loved one, this, for me, was the biggest loss I had ever experienced, and it remained that way. I was fortunate, my parents continued to live for a long time. The loss of Glen Canyon motivated me to get very actively



April 1969 Grand Canyon trip. Photo courtesy of George Wendt.

involved in the controversy about building two dams in the Grand Canyon.

After having seen the Grand Canyon, I became, as a fledgling conservationist, very involved in the Sierra Club's effort to motivate people to write letters to Congress to encourage them not to build the two dams that were contemplated there at that time.

* * *

I had the good fortune in 1965 to buy some rafts with Frank Hoover and another friend of his, Marv Stevens, who found these four military surplus rafts that we were able to buy—all of them for \$300—and that included a whole bunch of black bags and other waterproof containers and frames and oars. \$300 at the time was a lot of money. We each put \$100 into the pot and were able to buy the equipment from an entity called Bullhead Expeditions, owned by Woody Reiff. We were never sure if that was a place name or referring to the individual! (chuckles) Woody told me that line so... I don't think he would mind me retelling it. Bullhead Expeditions had been based in Bullhead City, and Woody had actually run trips through the

Grand Canyon, so he had some of the *big* waterproof black bags, the flat-bottom ones. And those we packed food in. But those rafts we had, including a seven-man assault raft and three ten-man rafts, allowed us to do that trip on the Yampa River in 1965 and much later, to go down Grand Canyon.

STEIGER: What was your theory when you bought the equipment?

WENDT: When somehow Frank found these rafts available from Bullhead Expeditions—how he found them, I don't know—we thought immediately this would be a way of eventually doing a trip through the Grand Canyon. I don't know if we thought we had to do all the homework in doing the other river canyons we did beforehand, but that subsequently became part of my river running history after doing the Hatch trip as a commercial passenger in 1965. We already owned these military surplus rafts, and the theory was that after the Hatch trip I would now be able to lead a small private group going with our military surplus rafts through the Grand Canyon. But, as it turned out, the fact I had been a passenger on a commercial trip did not qualify me to be a trip leader on a private trip going through the Grand Canyon. That was the key



George cooking in a late 1960s' era kitchen. Photo courtesy of George Wendt.

limiting factor: all private trips at the time had to have somebody who had been a guide, a working boatman, on a previous trip through the Grand Canyon. And there weren't many of those around, so that, de facto, and the fact that equipment was not readily available, those two limitations effectively radically limited the number of people going down through the Grand Canyon.

STEIGER: I hadn't heard that before. It seems like they must have just made that up in the early sixties, because how else did everybody get to go—how did Martin Litton and P.T. Reilly and all those guys get to go in the fifties?

WENDT: I don't know when this requirement came into effect, and I'm sorry I can't even say 100 percent scientifically or objectively that it *was* a requirement, but it was one that they laid on us. I don't know where my original letters from the Park Service are at this time, but that was laid on us as a requirement. We needed to hire a flight service that would overfly us at

Lava Falls and below Crystal to make sure we were still okay, and we had to have, as our trip leader, somebody who had been a guide on a previous trip through the Grand Canyon.

STEIGER: A working guide? That's interesting. Seems severe. Now, you weren't thinking of this as a business at that time?

WENDT: No thought about doing this as a business.

STEIGER: When you went to school, you took your degree in...?

WENDT: Actually, I received a degree in history, and then... Well, my father was an aircraft engineer, and I started out thinking I was going to be an engineer. I did okay in some of the subjects, but physics was not something I was that good in, yet I'd had a lot of background, so I had a math minor. The math minor was what allowed me to pursue a teaching career. I didn't want to be a history teacher, I knew that. But junior high math, or even high school math, I was pretty competent in those areas, and so for the years

after I graduated from UCLA, I pursued a graduate degree that led to a teaching credential. Which also allowed me not to immediately go into the work force, and that's how I had a *little* more time to explore Glen Canyon and the rising levels of Lake Powell, between breaks in school.

STEIGER: So you got a master's in education?

WENDT: Actually, I never got the master's degree. I completed all the course work, but I never took the final exams. I was off on the river at that time.

* * *

Initially, my friend Bruce Julien was signed up on the Sierra Club trip to go with Hatch down the Grand Canyon in June of 1965. I got my registration in just a little bit after he did, and the trip, I was told, was full, but I would be put on a wait list. Being put on a wait list, I had not paid for the trip. So when Bruce and I showed up at Lees Ferry after our Yampa trip, we met Ted Hatch there at a very early hour—call it 5:15 or whatever. He was trying to get everything ready for the trip going out that day. I introduced myself to him. “Is there any chance that maybe space has opened up? Could I still get on the trip?” And Ted said, “Well, I don't really know, but it doesn't make that much difference. Why don't you just come along and you can pay after you get off.” And so my original plan was to drive Bruce Julien's car from Lees Ferry down to Temple Bar, park it there for him, and then hitchhike back to Los Angeles. But the fact that I was able to spontaneously get on this trip was a pretty wonderful thing. The rapids, as I recall, were just *so* much larger than anything I had comprehended at that time. And running these large pontoons through the canyon *without* outriggers... All the passengers were asked to walk around Hance Rapid. I remember we were very apprehensive seeing the rafts go through there. There were four rafts on the trip, and the gear, all of our personal dunnage, was not in waterproof bags, it was just in duffle bags, and it was just under a big tarp. We were pretty concerned that this pontoon, being fairly narrow, could capsize. I remember they went with oar power through not only Hance, but also Lava Falls. Those were the two rapids we had to walk around while the two most experienced guides, who were Ted and Don, double rowed the pontoons going through Hance and Lava... Well, my recollection is they ran at least two of the rafts, because there were four guides on the trip and Don was one and Ted was one. I think a guy named Reynolds was another one. I don't remember the name of the other guides.

STEIGER: Jack Reynolds, I wonder? You guys had to

bail those boats, didn't you?

WENDT: No, they had cut the floors out. They must have cut the floors out, although we saw the rafts at the end of the trip, and they had not cut *all* of the floors out, because there was an amazing accumulation of sediment in the bottom of the perhaps bow section of the raft, and the stern section. I'm sorry I don't remember the details.

STEIGER: What else sticks out for you about that trip? Just the camping experience and the river running experience and all that?

WENDT: All very rudimentary compared to today. Much of the menu was large institutional cans of corn or beans or whatever, and the procedure was just to boil up big pots of hot water and put the cans, unopened, in those big pots, and that heated up the contents, and then they would open up as many cans as they needed. Sometimes cans would be allowed to cool down again. I remember breakfasts were just an *amazing* assortment of food, with cooked ham and eggs and pancakes—all you could eat, in terms of breakfasts. I remember being a little dismayed, this being a Sierra Club trip, to see the trash disposal system, which was just digging a hole near the river level, smashing all the bottles, dumping everything else in the hole near the water line, and then covering it over. No toilet system in use: people were just given a shovel and not really much in the way of directions at all, but just we went off individually, just wandering up behind some of the bushes, and dug a hole. Those two things certainly stand out in my mind.

I remember motoring right by Deer Creek Falls. All of a sudden, one of the passengers said, “Wow! Look at that!” and we were going by this amazing waterfall, and just saw it for a brief instant, and then we were on down the canyon. We did stop at Havasu, and it was a beautiful experience. We did hike up to Nankowep Indian ruins. We stopped at Stanton's Cave. We stopped at Tapeats Creek. We camped at Tapeats and did a hike up to Thunder River.

Cooking was on wood, at ground level. No clean-up of the fire pit—perhaps kicked or shoveled over with sand. But in subsequent years, then it was the human waste build-up behind rocks, and the charcoal on beaches that early-day rafting groups... certainly by 1970 we were already seeing human impact; and river runners started talking amongst themselves about how maybe we should do it a different way. As I recall it, it was the individual river runners who decided we should containerize our charcoal, we should not just leave it on the beach. And certainly the commercial companies were the ones who started having a toilet system, way before it was a requirement of the



Ed Gooch rowing, July 1967 Grand Canyon trip. Photo courtesy of George Wendt.

National Park Service.

During the course of the trip I remember very consciously thinking I could run this in my German Folbot. Since we already had four small military surplus rafts at that point, I thought they could carry the gear. But I recall that definitely as we went through, let's say, Upset Rapid, I was thinking, "Wow, we would have to portage this one." But then there'd be *long* sections where I thought, "We could run this, we could run *this*." I was thinking how I could be doing this on my own, not commercially; that didn't enter my mind at that time, but doing it as a "do-it-yourself" trip.

STEIGER: But when you finally left that trip, you knew you were coming back?

WENDT: I definitely had it as a major goal, that I'd be coming back. And now I was torn: I was still spending time paddling around the rising reservoir levels of Lake Powell, but I was also trying to start getting river running experience on any other western river that could give us the experience I thought we needed in order to be qualified to do a Grand Canyon trip. So I can't remember the exact years, but probably in 1966 we rowed Cataract Canyon. I believe it was early 1967 we paddled the Big Bend of the Columbia River, up in British Columbia, before a major dam wiped out that section of the river. There was a *very* large number 10 Grand Canyon-style rapid on the Big Bend of the Columbia, and it made it a little more scary because on the Columbia River there were

logs that had been timbered—logging companies floated logs down the river. I remember one *very* large whirlpool had multiple bundles of logs. Single logs were not the norm—it was truckloads bundled together with heavy cable that were the main obstacle in some of these giant whirlpools. I don't know what the flow was, but I'm guessing it was 100,000 or 150,000 cubic feet per second. One large whirlpool had multiple bundles of logs floating around, circulating in these giant whirlpools. I remember a single log came and wedged underneath our raft, which then provided some inability to move very quickly. And I remember seeing two other bundles of logs that just very conveniently were drifting toward us from opposite directions. I thought we were gonna get pinched between the two of these large momentum items—which was a little scary for us. So we got off of the log we were jammed up on top of, and rowed out of there as fast as we could.

STEIGER: Was that in your ten-mans?

WENDT: Yes. We used those on all the trips we did. Anyway, in 1967 we finally got approved for a trip through the Grand Canyon. We now had the requisite experience.

Plus, through a very big coincidence, I had met a guy by the name of Ed Gooch.

When I started teaching in 1966, the principal wanted to introduce me to the other hundred faculty members, and he asked a little bit about my hobbies or whatever, and found out I fancied myself a river

runner. So he told the faculty “George is a river runner, he rafts rivers.” I remember this guy came up to me afterwards, had a big hand, he said, “Hello. Glad to know there’s another nut on the faculty!” This was Ed Gooch. He was the print shop teacher at Paul Revere Junior High School in Los Angeles. He had been a volunteer boatman for Georgie White in 1957, in the high water. I believe that’s the year, 1957, high water, when they ran at about 128,000 cubic feet per second down the canyon. Ed had the requisite experience! He had rowed what they called the “thrill boats,” which were three 10-mans tied together. And so that’s how we configured our first trip through the Grand Canyon. We tied our three 10-mans together. We tried to tie them not just side-by-side, but underneath, from the left raft to the right raft, so that they wouldn’t have the ability to flip up on top of each other and sandwich, which we had heard about. So Bruce Julien and I rowed three 10-mans in that way, and Ed Gooch got to row the single 10 man, which was big excitement on our first trip in 1967. It was a private trip, but we fancied ourselves “Gooch-Wendt” and so we called ourselves that, even though we were not a commercial company. About 1969 I remember some communication from the Park Service—because we

did *two* trips in 1968, and then three trips in 1969—and the Park Service said, “This looks like you’re taking people. How much are you charging?” And we were charging \$300, which was a share-the-expense deal, but they said, “That looks to us like it’s commercial.” So they required us to become a commercial entity. So “Gooch-Wendt” was this loose association between Ed and myself.

Bruce Helin was on our first trip in ’67. He was thirteen, going on fourteen. He took great pleasure on getting on one of the oars of this triple rig of ten-mans. He could certainly row as powerfully as I could, and in many cases, at age thirteen going on fourteen—I think he turned fourteen on the trip—he was able to out-row me. He was a pretty strong kid.

STEIGER: Big boy.

WENDT: Big boy. And he took great pleasure in being able to out-row George. (laughter) His mother, Glo, handled the food, and she introduced us to Wilson dehydrated canned meats. There were three varieties: hamburgers, steaks, and pork chops—two per can. The deal was, you open up the can, you filled it with water, let it rehydrate, and then cook it up on the grill. The pork chops were especially good. Some people told us, not knowing they were dehydrated



Pam and George, with vanity license plate. Photo courtesy of George Wendt.



Above: 1973 OARS Grand Canyon trip.
 Left: August 1970 Gooch-Wendt trip.
 Young Dave Shore (later OARS/Sobek) on left.
 Below left: August 1973. Dave Shore rowing.

Photos courtesy of George Wendt.

canned, that they thought they were full-on regular pork chops. The hamburgers and the steaks were not bad, and for *years* after that I remember driving from Santa Monica where I was living at the time, to the Wilson plant out in Pomona Valley, loading up on cases of Wilson dehydrated meats.

Maybe we had one cooler, but essentially we didn't have coolers. Eggs didn't need refrigeration. Lettuce we put in pillow cases, and then we'd put the pillow case in a burlap bag and overnight we'd just let that bag hang down in the water and that kept it cool. You know, the outsides of the heads of iceberg lettuce would need to be peeled off, weren't maybe the most pristine. But amazingly, we could keep lettuce for most of the trip that way, on a two-week trip. We made an innovation: we got an ice chest and carried ice cream in it. We would have ice cream either the second or third night of the trip, with dry ice. That was always a big hit, I remember. But food was pretty simple.

STEIGER: Now you said you did in '67 just the one trip?

WENDT: Just one trip in '67, two in '68, and then



July 1977 OARS trip. On the left is Liz Hymens, middle with white visor is Dave Shore, front right is Bruce Helin. Photo courtesy of George Wendt.

three in 1969, then four in 1970. For a long time, I think we just did four trips a year.

STEIGER: What was up with that? Were you thinking of it as a business?

WENDT: By 1969 I was thinking about it, because I started running rivers in central California during the spring. I was teaching full-time, but I could leave Los Angeles Friday night, drive up to the Stanislaus River in central California, which was 340 miles from Los Angeles, and we'd run a two-day trip, Saturday-Sunday, and then drive home Sunday night. The people for those trips were initially friends. Then it was friends of friends. We didn't print any brochures for several years, but I started getting phone calls from people that maybe I'd met at a party, or maybe I'd heard of, people just started calling our apartment, Pam's and my apartment in Santa Monica, and wanted to go on a river trip. And then Ed Gooch being the print shop teacher at the junior high school, he had his kids start typesetting individual characters and printed the first brochures for Gooch-Wendt in the Paul Revere Junior High School print shop. (laughs) I still have some of those brochures with lines of type that are not quite level, because it was all hand set at the time. So sometime between 1969 and 1970, we

were definitely thinking this was a great part-time business that Ed and I could do in conjunction with our teaching. And so by that time we had liability insurance, which initially cost us ten percent of our gross. The insurance company said, "this is pretty hazardous." They wanted ten percent of our gross right off the top. Fortunately, we found over the years that rafting is a relatively low safety risk, with proper precautions, and so insurance costs have gone down over the years.

STEIGER: You said earlier it was Pam wanting to leave L.A. that got you over the hump and kind of turned the tide to where river running became your primary business?

WENDT: That is accurate. In 1971 there was a fairly large earthquake in southern California, a big quake in San Fernando Valley. Even though we lived about twenty miles away from it, it shook our apartment sufficiently that we were both frightened, but she was especially scared. She had grown up in Minnesota and didn't have any experience with earthquakes. My father kept talking about "when the big one was going to occur." He studied the San Andreas Fault, and he was convinced in the mid-1900s that since it had been roughly 1857 for the last big quake in southern

California on the San Andreas Fault, he just figured we were overdue for one, and he kept talking about when the big earthquake was going to occur. So Pam was very strongly motivated to get out of Los Angeles. Neither of us really liked the growing traffic congestion and the air pollution, and, really, we were both motivated to get out. So Angels Camp became our home; Calaveras County, 340 miles from Santa Monica. And some wiseacres who knew we were newcomers here, when they heard Pam was scared of earthquakes, said, "Well, you know, the San Andreas Fault starts like thirteen miles from here, up in the town of San Andreas." And we didn't know any better, we thought that's where the San Andreas Fault started. We were very relieved when we found out we were about a hundred miles from the fault line here—or more.

STEIGER: Pam was a nurse?

WENDT: She was an x-ray technician and had worked at St. John's Hospital in Santa Monica. She handled all the communication with passengers. A side note, back in the early seventies, the method of communicating between prospective passengers and companies running these river trips was by written correspondence, letters or postcards. We were *thrilled* in 1973 when we were mentioned in an article in *Better Homes and Gardens*, and our mailbox just started proliferating with mail, many letters, often half a page, typewritten, where people would say, "I have a family of four. We'd like to do a trip in June. Our kids are thirteen and seventeen." It was almost like they were going through an application process to inquire about the trips. And Pam had extra time between x-ray jobs, she would type personal responses to every person who inquired of our trips. This was before memory typewriters, and she was a pretty fast typist, and she got so she knew what she was gonna say, because it was the same thing in most of the letters. But that's how we communicated. People *very* seldom phoned. Phone calls were expensive: inter-city phone calls I think were at least 25¢ a minute at the time. Most people didn't phone, and so communication came by u.s. mail, and we would respond by u.s. mail.

* * *

I got a phone call—I don't know exactly when this happened, but call it the middle of 1979—from an ad agency. They said, "George, do any of your guides collect stamps?" I said, "Well, I don't know. I collect stamps. Would that be relevant?" They said, "*You* collect stamps?" I said, "Yeah, I have a pretty nice collection of u.s. stamps." And they said, "Sounds great. We want to do a stamp commercial." The

u.s. Postal Service wanted to get people to collect uncanceled commemorative stamps, because if you go and buy four stamps—that's 60¢. You stick it away in an album, they never have to deliver on the service.

STEIGER: They're gonna make some money.

WENDT: And some people buy *sheets* of stamps, and that's even better for the Postal Service. So that was one of the motivations behind commemorative stamps, to get people to buy a bunch of these and stick 'em away in albums. Peggy Fleming, the Olympic skater, had been featured in a stamp commercial. They said, "George, river running is exciting enough—let's make that happen." And I said, "Great!" They said, "We'll come out and interview you to see if you could do the job." And I didn't hear from 'em for a couple of months, I sort of figured it went away. Then they called me again, "George, we're wanting to come out there. Are you available?" I said, "Yeah." Again I didn't hear from 'em. They called up a couple months later and said, "We're gonna be there Saturday." And they came to Angels Camp, but it wasn't to interview me anymore—now they were already fully committed on this. Somehow I'd passed their qualifications, and they did a trip with us on the Stanislaus River, and it became a print ad that I have over at the office. It was in *Life* magazine and *Sports Illustrated* and many national publications—I mean millions and millions of copies of this with George Wendt paddling down the Stanislaus River. Then they said, "We need to film this in the Grand Canyon also. Where's the biggest rapid?" I said, "That's Lava Falls." They said, "We gotta film Lava Falls." So they put together the plan. They had me come down to Los Angeles, and they weren't terribly organized in the process. After I got in their office, they wanted to know what kind of an inflation pump we had, because they thought we were gonna have to pump up this raft in a big hurry, because we were gonna fly into Lava Falls by helicopter, and run the rapid. They finally came back with some little three-inch diameter pumps, and I said, "Hey, we've got much better pumps than that." So we set out, and I can't remember who the other guides were—Liz Hymens was one of them. About five or six of us, they flew us from the South Rim by helicopter down over the canyon rim, and the pilot was an experienced pilot, as we dropped over the rim, he purposely let the chopper down quickly to give us a little start. We flew down and landed at the top of Lava. I was gonna be the paddle captain for this raft, and we painted on the bottom of the raft in big letters, "GO OARS!" because we thought there was a good chance of it flipping. They were in communication with us, the film crew was set up down on the big black rock on the right. I got this message on

George Wendt, rapids-shooting philatelist.



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the walkie talkie, "George, do your rafts have any name identification on them?" I said, "Well, yeah, they say OARS on 'em." He said, "Can't have that." So they flew the chopper back with a roll of grey duct tape, and I had to tape over... We had gray Green River rafts, and we had to tape over the OARS logo on the raft. So we ran Lava Falls, we had a good run, they picked us up at the bottom, brought the raft right back up to the point above Lava Falls... I'm sorry to say I can't remember if we ran Lava three times that day, or four times, but I feel very fortunate we made it through each time, right-

side up, everybody in the raft, and never did see the bottom of the raft that said, "GO OARS!" But I do have some photos with the raft dangling from the chopper, and you can see in *big* letters, "GO OARS!" written on the bottom of the raft. That thirty-second ad they made... And they brought my son into the motion picture ad, it was filmed at a home in Topanga Canyon, wherein they said, "George, what do you do for excitement?" They're showing me going through Lava Falls, and my punch line is, "I collect stamps. It's one adventure I can share with my son."

Clavey then was about three. He kept fiddling with a pull tab on a drawer that made a nice little clicking sound as he dropped the handle, and they had to teach him not to do that because he was on camera. But he actually got enlisted in the Screen Actors Guild, and he got residual checks on this for a long time. They didn't pay me very much for it, because they figured I was getting some company promotion out of it. But this ad appeared twice during the Super Bowl game in 1980. Super Bowl ads were a lot less expensive then, but it was a thirty-second ad showing our raft going through Lava Falls, and then cut to this home where I'm sharing stamp collecting, flipping through the album with my son.

I finally did get a copy of the ad, which I think we have on our website. Even though I had many, many copies of the print ad, I only know of two copies that I still have in my possession. One of 'em's framed on the wall at our office.

It didn't seem to make much of a bounce in our business. I hope it did better for the Postal Service than it did for us. But it was part of what was still an amazing growth period for our business in 1979–1980. Essentially the number of clients—because we took a lot of clients in California—was almost doubling for several years in a row. That was during what I call the boom time of growth. Rafts had become available in the early seventies, which had been a limiting factor earlier. Other waterproof gear was becoming available. Bruce Helin had designed his beautiful frames that we used in the Grand Canyon...I mean, all that proliferated during the 1970s.

Just jumping way ahead, do you remember the movie "The River Wild" with Meryl Streep?

STEIGER: Oh yeah.

WENDT: That produced a *phenomenal* spike in California business, which in 1995 still stands far in excess of any subsequent levels, bookings, for *all* companies in California. I mean the business in California is about two-thirds today of what it peaked at in 1995. And it was directly attributable to that movie. I've joked with other river outfitters, "We need to get a re-release or a new creation of a major movie like 'River Wild' just to bring river trips back up in the consciousness of the American public."

STEIGER: I'll be darned. You wouldn't think that people would look at that movie and say, "Let's go run a river."

* * *

The Baby Boomers were the primary drivers of our business historically. They were our clients in 1974, at

the time they were 29 years old or so. The same people are now 69 years old, and some of them are still going on our trips. Today our average age is probably pushing fifty—our *average*. Even with our youth groups, our average age is fifty. We have so many people in their seventies going on trips...so to a large extent it's the same people going on these trips, and they haven't been filled in from the younger age brackets nearly as much as I would have thought would have occurred.

* * *

When Pam and I moved up here in 1974, we moved to Angels Camp to run the Stanislaus River. And the Stanislaus River had validity as a long-term resource to the State of California. Unfortunately, some other people didn't see it that way, and now if you go down the Stanislaus River Canyon you see a very low reservoir with a sterile bathtub ring along the shore, with the reservoir level down hundreds of feet below its high tide in 1983. But the business just grew, people were coming in droves. It was a good business, it was one that I could leave the office at three o'clock in the afternoon, jump on the river, paddle down to our camp, say hi to the crew there, and paddle out before dark that evening, and be home. It was a pretty neat river right in our back yard.

The year we moved up here in 1974, the dam was already pretty far along in its planning. It was a boondoggle passed by congressional people who had been entrenched in Congress for twenty years. And it was a make-work project for the area. They couched it in terms of power production, water storage, preservation of the environment—they had to get that in there, because it was going to be able to let water out to help the salmon fisheries. I mean, it *hurt* the salmon fishery much more than it helped it, but that was all embodied in the enabling legislation back in the sixties, or whenever the legislation was passed by the federal government. And we were seen by the local people as being outsiders. That fall there was an election where the people of California tried to block this dam, and it narrowly lost at the ballot, based on money, advertising, major banks and construction companies. But it was real close, it was 53–47 statewide. In Calaveras County it was 80–20 to flood the river. The people here wanted to get rid of *us* as much as anything.

Years later, after the river was flooded in 1982 and 1983, with two successive high-water years, after we'd run the river for eight years, a guy came up to me at the county fair and he was pretty jovial. He had a mug of beer that you can buy at the county fair here, but

he was friendly. This was one of the guys who had most vociferously fought against our environmental stance ten years earlier, and basically he said, “George, in retrospect, we really blew it. I realize now what we lost when the Stanislaus River got flooded. But *you* really blew it too.” I said, “Really?!” He said, “You know what you should have done? There were thirteen companies, all of them were outsiders. You should have come to some of us business people and said, ‘We’ll help you get a company started,’ even if you’d have had to donate rafts to us. We would have hired local kids, and the result might have been different if you had given us, in a sense, a vested interest in preserving this canyon.” And that story stuck with me. Actually it helped us subsequently when we fought to put the Tuolumne River... Well, the loss of the Stanislaus River in 1983 basically is when it got flooded, that became the galvanizing force to move to get the Tuolumne River into the federal Wild and Scenic system. It actually carried forward to a project we created later in Fiji.

* * *

Merrill Weech contacted us 23 some odd years ago. He was an attorney from Salt Lake City, and he wrote me a letter—sent a *lot* of river companies letters. I was one of the two companies that replied. He said basically “I’ll trade legal services for raft trips.” He had had two heart attacks by the time he was in his mid-forties, and his doctor said, “You’ve gotta change, buddy. Otherwise, you’ve got less than five years.” He quit his full-time legal practice and went on many river trips with us. Eventually he started charging us, but still at a very modest rate, and Merrill and I became good friends. We had a photographer on one of our trips who took a picture of South Canyon as the river sweeps around to Vasey’s Paradise. Merrill wanted to see that picture as a poster. Even though he had not a lot of artistic background, I let him sort of put it together. When the poster was printed, I didn’t pay an awful lot of attention to it. It came back at the bottom of the poster it said, “OARS Foundation.” And (chuckles) that was sort of a new concept to me, because this happened probably in the late nineties, and we didn’t *have* an OARS Foundation. But Merrill said, “George,” just planting a seed, “you need to do something philanthropically.” So that, I’m sure, helped set the stage. Merrill used to drive with me to many outfitter meetings. I’d fly into Salt Lake City, pick him up, and we’d drive up to Jackson, Wyoming, for our Grand Teton operation. He didn’t charge me for those five hours as we were driving up there, and we’d brainstorm and talk about all kinds of river running

stuff, and life in general. I’m sure in one of those drives that happened at least once a year, we talked a little bit more about it, and he finally did the legal work to set up the 501(c)(3) that got IRS approval as a tax exempt organization. We haven’t had too many people actually make donations. But I went on a river trip recently, and people asked me, as I was sort of a celebrity on the trip, I was rowing a boat, but people just asked, “How did you get the company started?” and I told the story pretty much like I’m telling you here. They asked me more questions, and then I told them that we were aspiring to take youth groups on river trips, and we also have a trip set up with a Wounded Warriors group in Cataract Canyon this next year. We did a veterans’ group a few years ago, in Dinosaur National Monument, and I feel my heartstrings tugging me to see if there’s a restorative power of the river for some service people who’ve been pretty well shot up physically or mentally. I hope that there is a therapeutic value there. And so as I told my story, somebody, almost like he was a shill, said, “So George, how do you get the money to do this?” And I said, “Well, candidly, a lot of it comes from OARS because we haven’t had tremendous success in other fundraising sources.” By this time dinner was ready, and the conversation ended. But this guy and his wife came up to me and said, “George, we appreciate what you said. We’d like to make a donation.” I said, “Well, that’s great!” And after we talked a few more minutes, I found they were serious. I said, “Do you mind giving me an idea how much?” They said, “Well, \$5,000.” I said, “Whoa, that’s pretty impressive. Thank you very much,” and ended the conversation. Then another guy came up. He was a guy who looked to me like he was about 53 years old; big, burly guy; nice gray moustache, gray hair; but somebody who I could tell was in good physical condition. He said, “George, thank you for sharing that. I’d like to make a donation.” By this time I’d had a few glasses of wine. I said, “Five thousand dollars?” And he said, “No, I think I can go ten.” So this guy has stayed in contact with me. I just got an e-mail from his wife last night as a matter of fact, and they’re gonna go to this conference which we’re a small part of next September in Salt Lake, sponsored by the University of Utah and the Veterans Administration there, to see what therapeutic documentation there is about working with wounded veterans in the outdoors. That is something which excites me at this point in my life, that we can engage people on river trips that I love, and that I hope can touch some people in a special way, as rivers have worked their magic on me over my life.



Upper Navua River, Fiji. Photo courtesy of George Wendt.

* * *

We found a river in Fiji that is still being run by a company we set up, called Rivers Fiji, running on the Navua River. We single-handedly funded a conservation area there. We did it by arranging a lease of the whole river canyon, extending 200 meters on either side of a 17-kilometer section of river. We got agreement from the indigenous people, ratified by the central government, that there was a 200 meter buffer on either side of the river to be preserved from any road construction; you couldn't take gravel out of the river, effectively; and it was not to be logged. This still, today, even though much of the surrounding area has been logged, as you float down the Navua River you see this strip that is pretty much intact, for all intents and purposes, and it's a beautiful thing that is being funded now by the people floating down the river. We take roughly 4,000 people a year down the river, and each person going down the river pays about \$17 or \$18 us, that goes to the indigenous people. We've showed them they're gonna make much more money off of these tourists than they would

by logging the trees in that band. The people speak English, they can talk to us in English, because that's the language of education. But we still wonder if they really understand the concept, even though they've agreed not to cut the trees. For years after we signed the agreement, they would make comments, "But you're not taking anything." We said, "We're taking memories." And so that's been a good project. All of the guides on the trip are indigenous Fijians, and it is showing how eco-tourism can help preserve a little bit of an area, allowing the indigenous people to remain in their villages, instead of having to go to an urban environment to work in a factory or something like that. And so now we say that, de facto, is another project of the OARS Foundation.

STEIGER: That *is* a good project. How did that idea transpire?

WENDT: Nate and Kelly Bricker. Nate Bricker was our general manager for many years, and his wife got a PH.D. in Parks, Recreation, and Tourism. Just after she got her PH.D., they went on a trip to Australia. On their way home, they stopped in Fiji, met some friends who told them about this amazing river there, and



George and Pam in Fiji. Photo courtesy of George Wendt.

they went on the river and came home, I think with six photos. They basically did not want to overwhelm me with an enthusiastic story about this river. They just had these few photos, and they said, “George, it’s good enough you ought to come over and look at it.” So the following year, I went over there, I was enthralled with this beautiful narrow tropical rain forest river, very narrow canyon, in some places less than fifteen feet wide. It runs year round, and they said, “George, we’d like to move here for three years, and we’ll try to make this a viable operation.” After they had been there about a year, I remember they e-mailed and said, “George, send \$10,000. We don’t have a lease yet, but if we basically present the money to the government, I think we’ll get a lease of the river corridor. We’ve already met with the indigenous people.” Nine months later, we did have a lease based on our willingness to put up some money up front. Over half the people in ten different villages, the adults signed that they were in favor of this. And although there have been some rough spots over the years, thirteen years later it’s still functioning as part of a 25-year lease that we hope to extend for another 25 or 99 years. We’re

actually working on a 99-year lease, just to preserve it from deforestation, because that is one of the pressing threats. The other pressing threat is a dam that would wipe this river out, because of its pretty significant hydro potential. And Fiji being a poor country, they say, “We *need* the power.” So we don’t know what the long-term future of the river will be, but for right now, I tell people it is the most *spectacular* one-day river trip that’s done anywhere in the world. And if money’s no object, you ought to fly over to Fiji just to do this one-day river trip.”

* * *

I’ve just loved rivers. It was never my goal to be so diverse—it’s just something that sort of has grown. As you know, we bought Martin Litton’s Grand Canyon Dorries in 1987. I think our first year of operation was ’88. Then several years later, Curt Chang called me up and said, “George, we’re running Northwest Dorries that Martin sold to us, and it’s just not working being truncated from Grand Canyon Dorries.” He basically said “your job is to buy the company and reunite us

so we get the cross-pollination between Idaho and Grand Canyon.” At the time in 1991, that seemed like a crazy idea to me, but I’m sure glad we made that jump, and Curt continued to run Dories in Idaho, and there has been a real good cross-flow of passengers. And then I guess I’m getting old enough that some of my contemporaries are getting out of the business, so I keep getting phone calls from people saying, “Hey George, I got a great deal for you!”

STEIGER: Oh, they’re all wanting you to buy ’em out?

WENDT: Yeah. That’s how we expanded really into Dinosaur National Monument. OARS had an operation there from 1997, on. But Meg Hatch called me—Don’s wife—and said, “We’d like to have you take over the name Don Hatch River Expeditions,” which we deliberated on, and after I signed the papers, I remember sleeping on the floor in the Vernal office, in, I think it was March. It was cold there—Vernal gets pretty cold in the winter, and I just woke up in the middle of the night and couldn’t go back to sleep. I thought, “What did I just do here?! Moving into *another* area that’s gonna take *more* time!” But as we’ve established ourselves now...and we’ve had *real* good operational managers in these different areas that have treated it as if it was their own company, Dinosaur National Monument is doing well, and I’m thrilled to be able to operate trips there too.

STEIGER: Could you even begin to list all the rivers you’ve run?

WENDT: I don’t have them all stored in memory right at the moment. There aren’t all *that* many. There are certainly people who have run more rivers than I have. Probably the number is in the forties. But I feel very privileged to have been able to run a number of wonderful river trips, transformative river trips, not only for me, in terms of the tranquility that it induces, but also in what I’ve seen...in directly influencing other people in their lives. And so that’s what keeps me going, is just knowing how valuable rivers are for the human psyche, and hoping that will be something that can be preserved for future generations.

STEIGER: Well you’ve had a huge impact—not just on your customers, but on all your many employees as well. And I mean that with the utmost sincerity.

WENDT: Well, it’s been fun. I am now, as best I know, the second-oldest head of a rafting company in Grand Canyon, after Gaylord Staveley. I remember so clearly sitting at some of those early meetings in the 1970s when I was the young kid in the group and feeling so in awe of all these big names...people like Fred Burke and Martin Litton and Ted Hatch, et cetera, who were nice to me and helped me along the way, and helped us become a professional river company. So I’m certainly

excited when I meet other people, some of whom I think are real young. Some of them are forty years old, and they tell me, “George, I’ve been running rivers since 1995. I remember the Meryl Streep movie.” And they were running their outfit back then, but to me that seems like recent history. So I’m delighted to see some companies changing hands and shifting into the guardianship of young 35 and forty-year-olds.

STEIGER: When you sat around the outfitters’ table with Georgie White, did she ever remember you as that one young kid who didn’t even have a lifejacket?

WENDT: I don’t think so. I had a few conversations with Georgie White, but quite often they were what I would call fairly superficial. I think a lot of time it was just a polite conversation, and that she didn’t really remember any of the things that I did.

* * *

I remember one time running Horn Creek at low water, and we’d had an interchange at Phantom Ranch, and got off late from there, and we wanted to get down and camp below Horn Creek that night. The water was very low, and we scouted the rapid on the right, and finally decided we’d run it right down the right shore. I don’t know how this is possible, but these ten-man rafts were narrower than the rafts we have today, and the boat in front of me went down, hit the top of a wave and turned around on the top of that wave, and went then back upstream—turned 180 degrees, but stayed right-side up. I passed this boat going on down through the rapid, and he was going upstream, at least relative to my direction, and lo and behold when he got to the top of the wave going back upstream, he did another quick 180, and this time as he was now headed downstream again, he pushed real hard on his oars, and he made it up over the top of the cresting wave. But he didn’t flip! I haven’t talked to anybody else that’s ever passed another raft going the opposite direction in the Grand Canyon. Maybe some other people have had that experience, but I tell this story to some people and they say, “No, George, you’re dreaming,” but I know that’s true.

One of the interesting things you probably remember, Olo Canyon, and that ladder at the back of the alcove there—we used to set up the ladder and climb up into the top of Olo Canyon, and then be able to proceed up the canyon. So I’ve climbed up into Olo Canyon many times. But one of the times I climbed up into Olo Canyon I didn’t need the ladder.

It was in 1983, when we did a high-water trip—actually did the canyon in 72 hours, not trying to set a speed record, but just three days was about the right



Above Left: 1983, Doc Nicholson rowing past the hole in Crystal Rapid, Dave Smith photo.

Above right: George rowing through Lava Falls on a recent trip. Left: The Wendt family—George, Tyler, Clavey, Pam.

Photo courtesy of George Wendt.

* * *

amount of time. And we were able to step from the raft right into the lip at Olo Canyon, and then proceed hiking up the canyon. We didn't need the ladder then, and probably the ladder had floated away. But the water was right even at 83,000 CFS, or actually 87,000 CFS is what we had then. We were able to step right into the canyon.

Yeah, Mike Walker was on that trip, and Doc Nicholson was on that trip too, among others. We did it just for fun, and to check it out. We thought it was important for us to know what the rapids were like at those higher flows. So it was a training trip.

STEIGER: I've heard Doc tell that story a few times. There's a great picture from that trip—was it Kurt Smith who took it?

WENDT: Yes, "The Power and the Glory" became a well known poster. The picture is of Doc Nicholson. It was an easy pull to the right of the giant hole, but it was a giant hole in Crystal that we definitely did not want to go into.

I feel extremely fortunate, number one, that I had a wife who condoned this—actually helped make a lot of it happen. I feel fortunate now to have two sons who are both full-time in the business, and have told me that as I get older they will take on more of the responsibility of running the company. I feel very fortunate to have had an *amazing* group of dedicated individuals... people who have carefully shepherded their part of the operation just as if it was their own company, *far* in excess of what I feel many would do. I mean, they took a real care and custody, treating it just like their kid, in a sense. We feel we all have an obligation for the future, to try to instill a love of wild places, and to try to build an awareness with the public that they have responsibility, too, to help take care of the fragile places. I remember spending countless hours reading aloud the Elliott Porter book on Glen Canyon, *The Place No One Knew*, and talking about how for this moment of time—meaning our campsite for this twelve-hour period that we're here—this camp with these amazing vistas looking up at the canyon walls becomes the center of our universe, and it's a very affirming feeling to realize we're so small in terms of our humanness. We can marvel at this phenomenal scenery we have here, but it's up to each of us, as I see it, to help make sure that continues past our lifetime.

Major Contributors

July 1, 2014 to June 30, 2015

GRAND CANYON RIVER GUIDES proudly presents the very long list of major contributors who supported our organization in numerous ways during this last fiscal year (July 1, 2014 through June 30, 2015). Due to space considerations, this list does not reflect the five-year memberships or contributions under \$100 (including general contributions and Circle of Friends), of which there were many. Your support helps us to move forward and maintain a healthy and vital organization that is better equipped to protect and preserve the Grand Canyon and the Colorado River experience.

We apologize in advance to anyone we may have missed in the lists below. Please let us know. And thanks again, not only to those acknowledged here, but to each and every one of you who support our efforts and believe in GCRG. We appreciate that support more than we can express. Thanks to you all!

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Financials—A Banner Year!

BY ANY MEASURE, Grand Canyon River Guides' financial statements published here for our members to review reflect what anyone would call a "banner year," for which we are profoundly grateful. Yet in order to better understand how this relates to GCRG's past performance it is necessary to share the unusual circumstances behind the drastic and much appreciated increase in revenue. There are essentially two main contributing factors: a large estate distribution from one of GCRG's general members, and a very significant contribution from one of our long-time supporters that came in just before the end of our fiscal year. The net effect is that GCRG is a much more solid organization and one which is even better positioned for the challenges of the future. We sincerely thank all of our funders, contributors, and members (guide and general members alike) who continue to firmly believe that our organization is an essential player in protecting and preserving Grand Canyon and the Colorado River experience over the long term. Together, we will keep our bow straight into the waves!

Lynn Hamilton

GRAND CANYON RIVER GUIDES, INC
DRAFT STATEMENT OF FINANCIAL POSITION
Fiscal Year ending 6/30/15

ASSETS

Cash in checking/savings	\$ 122,601
Postage & security deposits	1,308
Total Current Assets	\$ 123,909

FIXED ASSETS

Computer & office equipment	\$ 42,817
Field equipment	6,487
Database	1,088
Website	4,863
Less depreciation	(51,804)
Net Fixed Assets	\$ 3,451

Total Assets **\$ 127,360**

LIABILITIES & EQUITY

Accounts payable	\$ 5,150
Payroll tax liabilities	1,046
Restricted funds	278
Retained earnings	120,886

Total Liabilities & Equity **\$ 127,360**

GRAND CANYON RIVER GUIDES, INC.
DRAFT STATEMENT OF ACTIVITIES
Fiscal Year ending 6/30/15

INCOME

General contributions	\$ 52,301
Foundation grants	43,500
Membership dues	39,591
GTS revenue	24,905
Circle of Friends	14,223
Estate distributions	10,280
Sales (t-shirts, hats, etc...)	9,101
Government grants	6,623
Non-cash contributions	4,800
First aid class income	4,690
Memorial contributions	2,300
Fall Rendezvous income	1,550
Interest Income	217
Cost of goods sold	(8,083)

Total Income **\$ 205,998**

EXPENSES

Salaries & benefits	\$ 45,644
Contract labor	33,466
Printing	19,321
Postage	9,781
Rent	9,600
Outside services & outfitters	7,416
Food (GTS)	6,895
Insurance	5,414
Payroll taxes	3,327
Equipment rental	2,988
Office expenses & supplies	2,350
Travel & per diem	2,337
Telecommunications	1,892
Depreciation expense	1,728
Utilities	1,501
Honorarium	1,150
Merchant fees	830
Professional fees	710
Repairs & maintenance	180
Subscriptions	84
Meeting	80

Total Expenses **\$ 156,694**

Net Income **\$ 49,304**

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Thanks to the businesses that like to show their support for GCRG by offering varying discounts to members...

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Entrance Mountain Natural Health—360/376-5454
EPF Classic & European Motorcycles—928/778-7910
Five Quail Books—Canyon & River books 928/776-9955
Flagstaff Native Plant & Seed—928/773-9406
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Laughing Bird Adventures—Sea kayak tours 503/621-1167
Marble Canyon Lodge—928/355-2225
Marble Canyon Metal Works—928/355-2253
Dr. Mark Falcon—Chiropractor 928/779-2742
Moenkopi Riverworks—boat rentals & gear 928/526-6622
Mom's Stuff Salve—435/462-2708
Mountain Angels Trading Co.—Jewelry 800/808-9787
Mountain Sports—928/226-2885
Patrick Conley—Realtor 928/779-4596
Plateau Restoration—Conservation Adventures 435/259-7733
Professional River Outfitters—Rental boats & gear 928/779-1512
Randy Rohrig—Rocky Point Casitas rentals 928/522-9064
Rescue Specialists—Rescue & 1ST Aid 509/548-7875
River Art & Mud Gallery—River folk art 435/648-2688
River Gardens Rare Books—First editions 435/648-2688
River Rat Raft and Bike—Bikes and boats 916/966-6777
Rivers & Oceans Travel—La Paz, Baja sailing 800/473-4576
RiverGear.com—Gary and Beth Harper
Roberta Motter, CPA—928/774-8078
Rubicon Adventures—Mobile CPR & 1ST Aid 707/887-2452
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Sanderson Carpet Cleaning—Page, AZ 928/645-3239
Sierra Rescue—WFR and swiftwater classes 800/208-2723
Sunrise Leather—Birkenstock sandals 800/999-2575
The Summit—Boating equipment 928/774-0724
Tele Choice—Phone rates 866/277-8660
Teva—928/779-5938
Vertical Relief Climbing Center—928/556-9909
Westwater Books—Waterproof river guides 800/628-1326
Wet Dreams—River Equipment and Sewing 928-864-7091
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photo: John Bryant Baker