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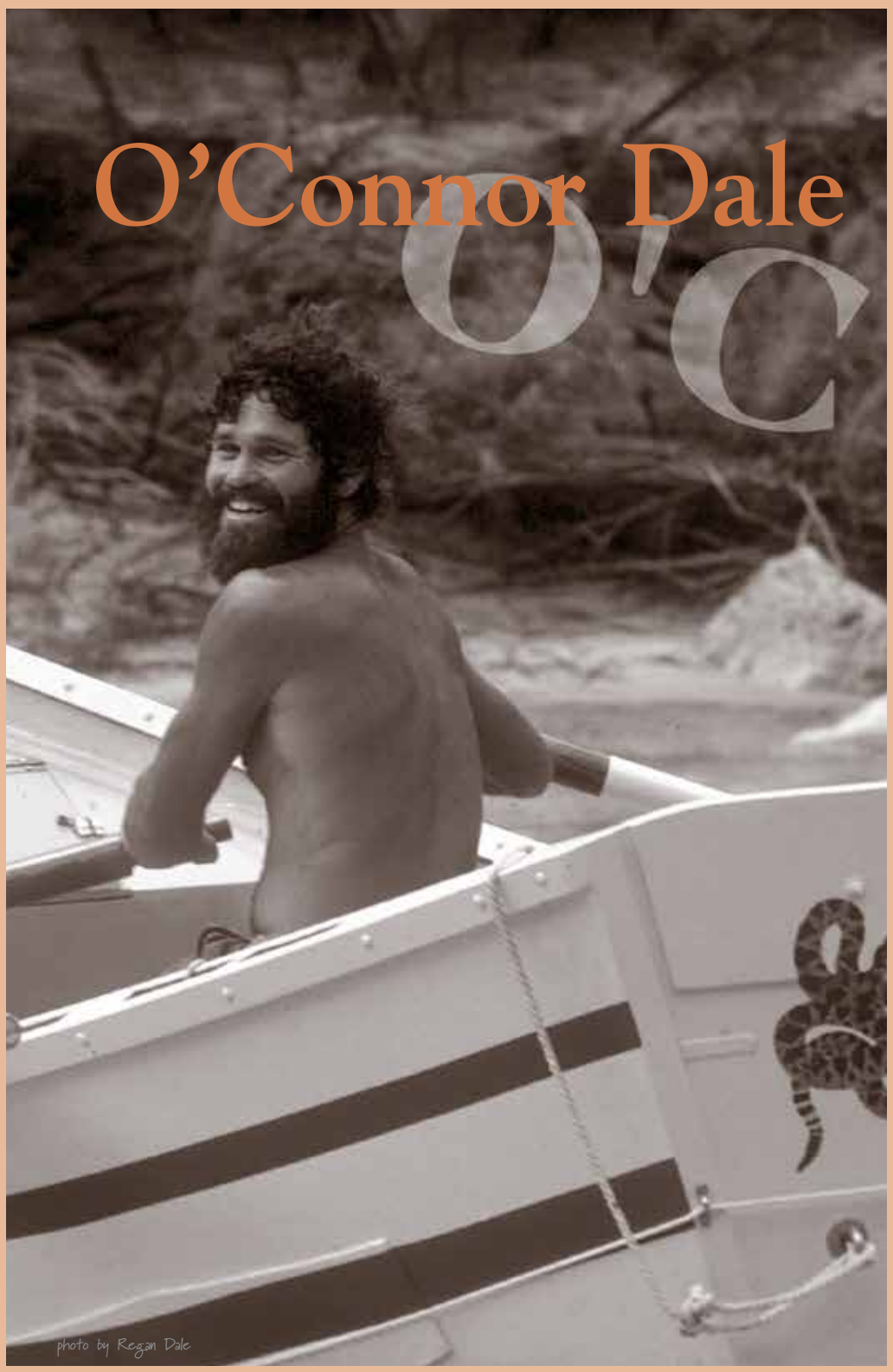
boatman's quarterly review



O'Connor Dale

photo by Regan Dale

Story on page 24

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 held the first Monday 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 computer disk, PC or MAC format; 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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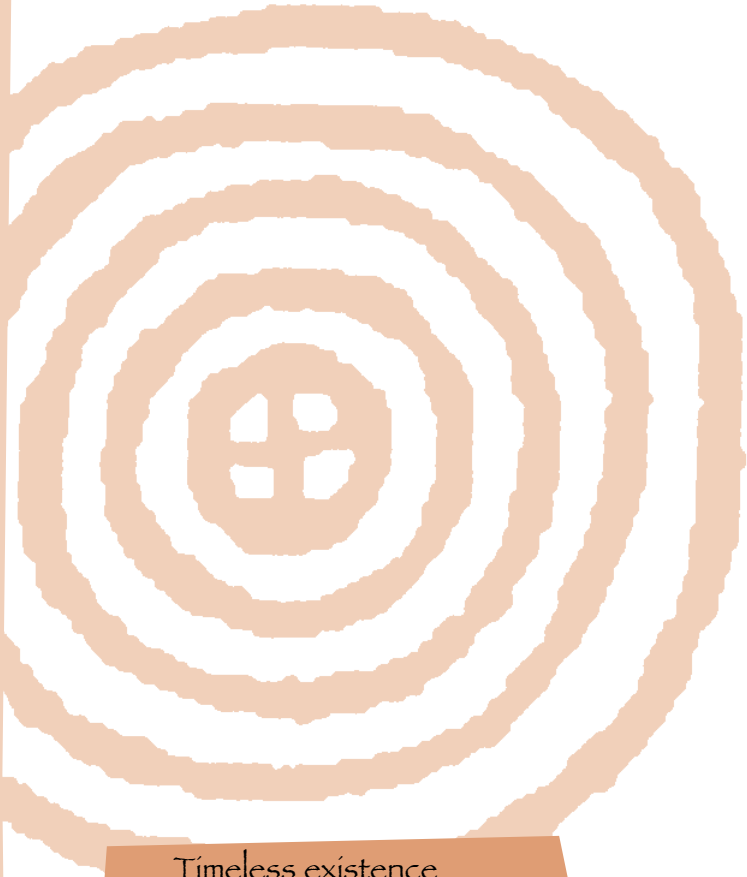


Timeless existence

Our watches have no meaning

One wonderful day

So, someone on the trip wrote a haiku, and the next thing you know, someone else gives it a try and then it becomes a collective thing. It was fun. Creative. Enjoyable. The trip that wrote haikus.

Haikus are easy and anyone can write them. Five—Seven—Five is all you need to know. Give it a try!

All the poetry throughout this issue is by passengers and crew on a trip last summer...

All photos with haikus by Bronze Black.

Winter 2001 Already

Time flies when you're having fun. Time to write that definitive article for the lead into the first BQR of 2001. As usual, I've put it off 'til the last minute. Five days past the deadline for submissions and the night before driving to the Ferry to rig for a science trip. Luckily for GCRG, we have Lynn Hamilton to keep things from flying apart. Speaking of Lynn, in what is probably a long overdue move, the Board of Directors has voted to establish the position of Executive Director and promote her into the position since in reality, she's been performing in that capacity since she took on the job of keeping our heads above the water a few years ago. She is the perfect person for the job and we are really blessed to have her.

A few weeks back, Lynn, Richard Quartaroli and I attended two meetings at the South Rim. The morning meeting dealt with NPS concerns over last summer's outbreak of gastroenteritis on river trips; specifically, they (we) want to determine the etiology of the illness and implement effective preventative measures.

The best guess regarding etiology is a waterborne viral pathogen. Since viruses are not filtered out by any water filtration methods, we will also have to disinfect all of our water with chlorine, iodine, boiling or carry pure water from the Ferry or Phantom Ranch. Carrying water from pure sources is only possible for motor trips and boiling is prohibitively fuel and labor intensive. That leaves rowing trips with only two possibilities for pure water, iodine and chlorine. Many people are iodine intolerant, leaving only chlorine disinfection after filtration as a way to provide safe, potable water on rowing trips.

The challenge for those of us who don't like that swimming pool taste or are concerned with the possible long term health effects of ingesting mega amounts of chlorine (a powerful oxidant), is to figure out how to effectively remove the chlorine after the required disinfection. I think a second pumping of the chlorinated water through a carbon filter might work. Any ideas out there on this one? Contact me and let's get a system figured out.

While the additional requirements for purification will increase our workload a little, I'm encouraged by the fact that they realize that it's the water and not our sanitation practices causing the outbreaks.

A related topic of discussion was the fact that the offending pathogen was never positively identified in either the 2000 or the 1994 outbreaks. In order to rectify this, stool samples from infected individuals need to be obtained in a timely manner for testing. Procedural protocols will be forthcoming. The bottom line though (no pun intended), is to keep people healthy on our trips.

Our second meeting was to get acquainted with the new acting Wilderness District Ranger, Mike McGinnis, and discuss the first aid and guide licensing changes instituted in the 2001 Commercial Operating Requirements (CORS). We were opposing the change from a minimum requirement of Department of Transportation (DOT) First Responder to Wilderness Advanced First Aid (WAFA) for guides and Wilderness First Responder (WFR) for trip leaders. Our argument was that the cost and time commitment coupled, with the limited availability of courses, would present undue hardship on all guides and would eliminate many veteran guides who have moved on to other endeavors, but would like to guide a trip occasionally. We also pointed out that there is, as yet, no nationally recognized standard curriculum for WAFA or WFR.

The Parks' position is that the requirement has been raised nationally to the WFR level so they are compelled to raise it in the Canyon. They did, however, acquiesce to our contention that a phase-in period was necessary; thus, for the time being, if a guide stays current in all certifications, the DOT standard will be acceptable. It is a tough position for us to take, because we see the value of WAFA and WFR training and have encouraged and helped to provide it for guides, but to make it the minimum requirement seems to place an unfair burden on the guides. A note here…NPS personnel are paid to take the required courses. Any ideas out there on this one?

We also discussed the new change in the CORS requiring new guides to have outfitter sponsorship in order to take the Guide Licensing Test. The NPS argument on this one was that they want someone else to take responsibility for verifying the necessary experience qualifications of a guide candidate. This is a liability issue that the Park Service feels they need to divest themselves of.

Then there are all those other issues that we need to work on. Use allocations, guide pay and benefits, decommissioning the dam, eating breakfast and getting my next trip rigged. The last two of which have to be my priority at this point. Hopefully most of you know what I'm saying, but please feel free to write or e-mail me personally with your criticism or, better yet, any helpful ideas or suggestions you may have. Cheers, or as the old-timers used to say, "Guano," for now.

Kenton "Factor" Grua

Dear Eddy

Regarding *Preliminary Results of the* LSSF *on Native Fishes in the Grand Canyon* by Melissa Trammell, BQR 13:4

In the summer of 2000, the Bureau of Reclamation initiated a test of the concept of Low Steady Summer Flows (LSSF) called for in the 1995 Fish and Wildlife Service Biological Opinion. The Grand Canyon Monitoring and Research Center (GCMRC) was responsible, together with teams of collaborating scientists, for developing the science plan to evaluate this experiment. A scientific symposium to discuss the results of this experiment will be convened in Flagstaff at the Little America Hotel on Thursday April 26 and Friday April 27, 2001. At that time, GCMRC and the scientists who participated in the experiment will present their findings. We invite BQR readers to attend this symposium.

In the meantime, an article in the December BQR reported preliminary results of the LSSF test on native fish in Grand Canyon. The author attributed findings associated with native fish to steady flows and implies that these flows were beneficial to native fish. The author provides qualifying statements in many cases, but does not provide plausible alternative explanations for the response observed this summer. GCMRC feels a responsibility to re-enforce the caveats contained in the article and emphasize that the preliminary observations presented in the article are open to equally plausible alternative explanations that should not be discounted before a thorough analysis has been conducted.

Alternative interpretations for some of the information relayed in the December article include:

A) Flannelmouth suckers may have pulled off a strong cohort that was coincidental with a steady flow regime. There were large numbers of young native fish in the mainstem in 1993 as well, but this occurred under a fluctuating flow regime.
B) Water clarity in the mainstem was very high compared to previous years. People could visually see large numbers of fish. But does this mean that there were more fish?
C) The sampling effort was greater in 2000 than in previous years, which may bias sample size.
D) Fathead minnows often spawn later than native fish, so one would expect the numbers to increase over the summer.
E) Larval drift from upstream areas like Beecher Springs (in the mainchannel) cannot be discounted. Young fish from the LCR are found below Tanner, so why not from Beecher Springs to mile 197?
F) Is it possible that young fish would have been found at mile 197 in other years if a similar monitoring effort had been implemented?
G) We cannot presently separate LCR recruitment effort from mainstem recruitment except by making spatial assumptions.
H) To make conclusions of success or failure based on a single event does not permit the exclusion of other hypotheses for the success of a years' cohort.

Science is a process of hypothesis testing, discovery and dissemination. GCMRC and its collaborating scientists are excited by the LSSF test and the contribution the results of this experiment will make to our understanding of the Colorado River ecosystem. We remain cautiously optimistic about the apparent benefits of the LSSF test; at the same time we encourage everyone who is concerned with the health of the Colorado River ecosystem to be patient as we and our collaborating scientists evaluate the results of this experiment. One lesson from the 1996 experiment is that initial interpretations may change as more analysis is conducted.

The BQR is a journal that promotes understanding of the Colorado River and its environs and we applaud its contributors and the interests of those who subscribe to it. As for LSSF and native fish, more data may need to be analyzed before any trends become obvious and the essential data may require many more years of effort to collect.

We applaud the hard work of the collaborating scientists who helped make the LSSF experiment a success and we look forward to hearing a more complete analysis of the data that has been collected at the April Science Symposium. We hope to see many of you there.

Barry D. Gold, Chief GCMRC

Howdy folks. Wanted to tell you how much we enjoy the quality, humor, information, and amazing human profiles your review brings to life…It is rare that a group of people can blend politics, business, wilderness, photo-journalism in such an artistic way…Then again I'm not all that surprised after I met the guides runnin' the grand—always kind, helpful, and willing to share ice. Keep up the good work.

Keith Linford

Gremlins and Glitches

BQR is publishing a series of *Letters from Grand Canyon* that I have written to try and convey in reasonably non-technical terms the geologic history of the Colorado River. This series has been published elsewhere, so it seemed efficient to use this nice, clean copy as source material, avoiding diskettes, attachments, or what have you. Nice idea, but it is just this idea that allowed a nasty gremlin to come in.

What I had forgotten is that the previous publication contained a bad typo. Needless to say, this typo has been faithfully duplicated in the article printed in BQR 13:4, *Winter* 2000–2001.

The article has to do with how rivers function and how they do their work. To do work, rivers need energy, and this energy is derived from movement of the river water. Its name is energy of motion, also known to anybody who has taken beginning physics as kinetic energy. This is where the typo comes in. The formula for the energy was printed on page 9 as Ek = 2mv2, which makes no sense at all.

The proper formula is $E_k = \frac{1}{2}mv^2$. *Ek* stands for kinetic energy, *m* for the mass of water moving, and *v* is the velocity at which the water moves. At this point, you may be saying "so what" and yawning, but actually this little equation contains the key to understanding rivers, because it explains why the power of a river increases so drastically with the discharge.

Enough already. Look at the article again if you want to learn more. Sorry about the booboo.

Ivo Lucchitta

Remaining Hopeful

I first heard about the potential of the tamarisk removal project this last fall. At that time I was pretty unsure about the reasons for and the means of accomplishing this daunting task. After reading Larry Stevens' and John Middendorf's articles, I felt even more undecided about what is right and wrong in this circumstance. I felt more on the fence about what to do. With more time and education on the facts of the project, I feel that something must be done. Something timely and constructive.

At the root of this scenario is a plant, a few species of genus *Tamarix*, that somebody somewhere in this great country of ours introduced for the very reasons it is now being condemned. One can only hope that we can learn from this explosion, this perceived invasion, that our actions cause an incredible ripple effect and expense on the world we inhabit.

"Plants grow in ecosystems, not parks…", wrote the late David Brower. Tamarisk doesn't know Grand Canyon and its tributaries from the Bill Williams River, from the banks of the rivers of its Eurasian homeland. By the hands of man, this living being came established here and has done well since. Done well at a big price.

There is no doubt that tamarisk have been a big factor in the change of the southwest's riparian ecosystems. But more than a "naturalized gone non-native invader" species, this plant serves as an "indicator" species. One which indicates heavily that we need to take a step to the side and really think about our relationships with plants. Relationships which have gone from understanding, collecting and cultivation to owning, exporting and genetic modification.

Whichever is deemed just, an Environmental Assessment or an Environmental Impact Statement, one can only hope that those with questions and concerns will use this instrument to be heard and to be involved. One can also hope that with the ecological restoration that will take place, a philosophical reawakening can happen to lessen the need for eradication, mechanical methods, and Garlon in Grand Canyon. For nothing seems more alien than these.

Rhonda Barbieri

What's happening with Grand Canyon Youth?

Right now over 130 kids (ages 13–19) from Flagstaff and beyond are earning money and doing community service in preparation for trips on the San Juan River and the Colorado River through Grand Canyon. They are also preparing some exciting project outlines for educational projects about the Colorado Plateau. Last year Grand Canyon Youth (GCY) coordinated five very successful river trips serving 79 students (three San Juan, one Desolation Canyon, one Grand Canyon), but, matching funds to help students and GCY meet this year's financial obligations (a thank you to the already kind and generous outfitters: AZRA, Diamond, Adventure Discovery) are running low.

Grand Canyon Youth has grant proposals in the works; we have a Business Sponsorship Program; and we have our Adopt-a-Youth program which provides assistance to youth whose families are unable to provide financial assistance. Would you like to help out a really good cause which is to "get kids on the river" so they may gain the appreciation and love that we have for this beautiful region? Then please contact us at:

Email: gc_youth@email.msn.com
Phone: 520-773-7921
Grand Canyon Youth
P.O. Box 23376
Flagstaff, Arizona 86002
Web page: www.grandcanyonyouth.org

By the way, Grand Canyon Youth would like to thank everyone so far who has participated and is participating in the mission to provide youth an experiential education along the rivers and in the canyons of the Colorado Plateau in an effort to promote environmental awareness, community involvement, personal growth, and teamwork among people of diverse backgrounds. Thanks to everyone who made the year 2000 a success for GCY! Let's do the same for the year 2001.

Lynn Roeder

GCY on the San Juan

Grand Canyon Youth is hosting an auction to raise funds to directly support the middle and high school student scholarship fund. This scholarship fund sponsored 90 students for the year 2000 season. The goal for the 2001 season is to support 150 students on nine river trips.

2001 Auction Sunday, March 18
Radisson Hotel Ballroom / Flagstaff
call Jon Hirsh @ 520-779-5609 for details

Ocotillo

Scientific name: *Fouquieria splendens*. The ocotillo is one of the most unique plants in the desert west. It looks like it could be straight out of a Dr. Seuss book with its whiplike branches radiating out of a central base. This plant is very adapted to the desert climate, appearing dead until rain hits. It then puts out green leaves and bright red flowers. As soon as the conditions dry, the ocotillo will immediately drop its leaves to prevent moisture loss. Ocotillos are found 5,000 feet or lower throughout all the deserts of the southwest.

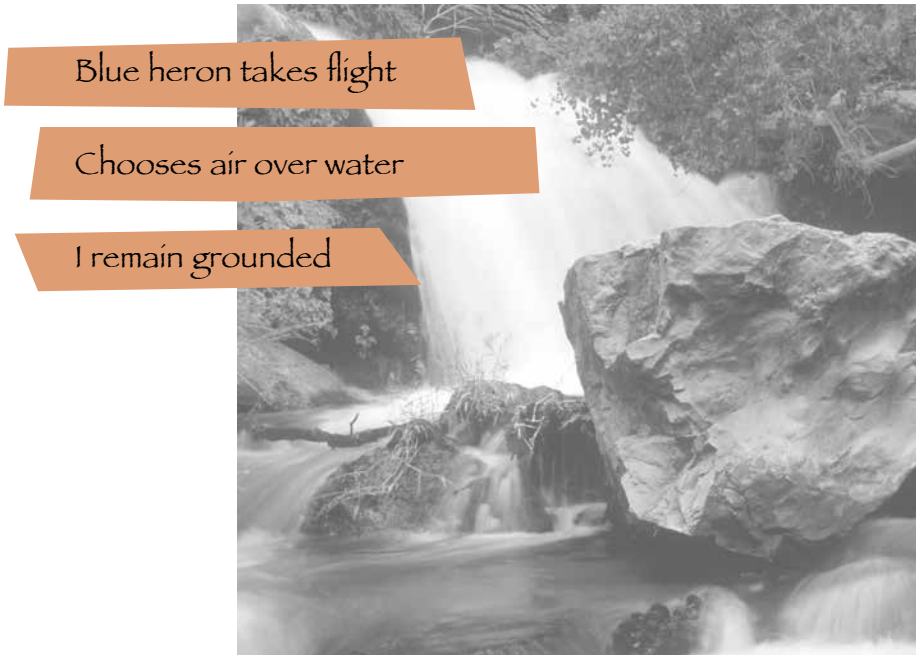
The Cahuilla Indians eat the seeds and flowers. A delicious sun tea can be made with the flowers also.

In the southwest, living ocotillo fences are commonly used for protection and beauty. The stems are cut and then re-planted in the ground side by side to create and impenetrable fence. The dead branches are used in adobe construction as well.

Medicinally, the tea of the bark is an excellent lymphatic herb. It has also been used traditionally as a poultice to reduce swelling and inflammation. The ocotillo is a protected plant in Arizona. If you are going to utilize it you must get it from private land.

DeeAnn Tracy

Sam Walton



The Changing Rapids of Grand Canyon:
Waltenberg Rapid

Once upon a time, there was a large rapid in the middle of Grand Canyon that really scared those who rowed wooden boats. No, I'm not talking about Dubendorff Rapid; instead, the big scary one was Waltenberg. Yeah, the rapid is still big (see Steiger, 1993), but it isn't as threatening as it used to be. Waltenberg Rapid offers us a lesson that side canyon floods may actually make rapids easier to negotiate, and that maybe if all you are concerned with is whether your boat hits rocks or not, perhaps you should like the way Glen Canyon Dam is currently operated.

Waltenberg Rapid (November 7, 1909)
Raymond Cogswell took this downstream view of the rapid while Stone, Galloway, and Dubendorff scouted Waltenberg.
(Raymond Cogswell, #872, courtesy of the New York Public Library)

Waltenberg Rapid (September 14, 1994)
As this photo at about the same discharge shows, the tongue of the rapid has been pushed downstream. The rapid probably has a larger fall but is deeper in the center. (Robert Webb, Stake 2866)

At mile 112.2, Waltenberg Rapid is half way between Lees Ferry and Diamond Creek. As with other rapids in Grand Canyon, the Board of Geographic Names misspelled the name of the rapid as Walthenberg, and the mistake was printed on USGS topographic maps (witness Deubendorf Rapid, named for Seymour Dubendorff). They apparently didn't know that the person being honored was named John Waltenberg, a fellow who worked for William Bass at the camps and mines upstream. Like other misspelled landmarks in Grand Canyon, I choose to honor them by correctly spelling their names.

Most of the early expeditions simply portaged the rapid. The first person to run Waltenberg, probably shouting "Whoops! Aha!" as he went, was George Flavell, who rowed the *Panthon* through Grand Canyon in 1896. In his typical fashion, Flavell didn't write much about his experience with Waltenberg. Everyone else running the river before 1911 either lined or portaged down the left side, scrambling among the rocky outcrops of Precambrian schists and amphibolites. If you've never been over there, it's a nice place to visit, and lots of photographs were taken from river left. By matching these photographs, we've learned a lot about Waltenberg and how it has changed.

The Kolb brothers sure noticed the rapid. On Christmas Eve of 1911, Ellsworth ran first down the left side; Emery followed on the right. Emery stuck his boat on some rocks at the head of the rapid, climbed out, and tried to free his boat. Ellsworth flipped the *Defiance* in one of the rapid's many holes and floated downstream, paralyzed in the freezing water. Watching the flip, Emery furiously yanked his boat off its perch and, further down the rapid, proceeded to punch a hole in the side of the *Edith* that was big enough to fit a person through. Ellsworth crawled out just upstream of 112½ Mile Rapid, and amazingly enough, crew member Bert Lauzon swam out and caught the *Defiance* before it was swept downstream. They called it Christmas Rapid, a name that obviously didn't stick. Emery came back to run the rapid in 1923 without incident.

Waltenberg Rapid (September 4, 1923)
The entrance to the rapid was relatively wide in 1923. The series of holes on the left side of the tongue may have been what flipped Ellsworth Kolb in 1911.
(E.C. LaRue, #492, courtesy of the U.S. Geological Survey Photographic Library)

Waltenberg Rapid (August 10, 1991)
A recent debris flow has pushed water towards the left and moved the tongue further downstream. Note the increased curvature of the tongue as it enters the rapid. (Ted Melis, Stake 1789)

Buzz Holmstrom had good reason to dislike Waltenberg too. During his solo run in 1937, Holmstrom got tired of lining and started running everything. He hit several rocks "hard" at about 7,000 cubic feet per second (CFS) but made it through Waltenberg. Returning in 1938, Holmstrom punched a hole in the bow of his boat at 10,000 CFS on his way to being the first person to run all the rapids in Grand Canyon in one trip. Waltenberg was his nemesis.

The change in Waltenberg was both subtle and significant. The largest debris flow from Waltenberg Canyon occurred between 1911 and 1923. This debris flow filled in the right side of the rapid, but not enough to help the Kolbs or Holmstrom. Another debris flow sometime between 1973 and 1984 deposited a small cobble bar, raising the top of the debris fan and increasing its volume. As a result, the debris fan now pushes more water towards the left, raising the depth in the center of the rapid sufficiently to cover the rocks that plagued the Kolbs and Holmstrom.

So why on Earth would a boater want to like the way Glen Canyon Dam is operated? Two reasons: flood control and high minimum releases. Because of the flood control operations of Glen Canyon Dam, floods rarely exceed 33,000 CFS (the notable exception being 1983, of course). Dam releases are rarely sufficient to move large boulders around, so the enlarged debris fan at Waltenberg is going to remain large for the foreseeable future. The high minimum releases, combined with the reduced width of the channel, provide sufficient water to cover those nasty rocks in the center of the rapid. You can always get into trouble in wooden boats, but you are not likely to hit rocks in the center of Waltenberg in the near future.

Bob Webb

KOLB, E.L., 1914, *Through the Grand Canyon from Wyoming to Mexico*: New York, Macmillan, 344 p.

STEIGER, LEW, 1993, "My God, It's Waltenberg!": Grand Canyon River Guides *News*, v. 6, p. 22–26.

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The Power of Place and the Importance of Natural Quiet at Grand Canyon National Park

Summary

There are special places in natural and built environments that have intense psychological power. Consciously and subconsciously, visitors perceive these powers through all their senses. When intrusions interfere with these sensory inputs, the visitors' focus on the power of these places blurs.

The Grand Canyon is one of the most quiet national parks, but this natural quiet is being compromised. Although air tour riders may not be aware of it, they compromise the power of the Grand Canyon. They not only do it to themselves, they do it to visitors who come to the Canyon specifically for contemplative recreation.

Experiencing the Grand Canyon

I still have the bird book my father bought me during our first visit to the Grand Canyon. Like most Canyon visitors, we stayed on the safe side of the rim, and the visit was brief. Although I was but 13 years old, I felt a power emanating from the magnificent abyss. I don't remember the specifics of what I experienced, only the power.

I remember more detail from my first trek below the rim. It was a decade later and I was older. The first thing I remember was the visual grandeur. I don't have to tell you of it; you have been there or have seen the magnificent photographs.

But there was more. There was the subtle odor of pine trees near the rim. There was the feel of pitch between my fingers after I touched the amber flow of a pine tree. I remember the feel and sound of my fingernail rubbing across the layered rock. I recall a cool breeze across my face and the smell of desert near the bottom. I think of the canyon wren sound. Wherever I hear the cascading call of a canyon wren, it takes me back to my first hike at the Grand Canyon.

After hiking the popular trails, I rowed the river. I remember the energy of the rapids and the still water behind the rapids. I appreciated the intense and subtle sounds of the water. The views were awe inspiring.

I studied air tour noise at the Grand Canyon for my masters thesis. Per the recommendation of my thesis committee, I took a helicopter ride over the Canyon. The view was great. The sound of the engine and rotors was intense but it was partially masked by the music piped into our ear muffs. Rather than hearing natural sounds, I heard the themes from *2001: A Space Odyssey* and *Chariots of Fire*. What the ride lacked was the power of the Grand Canyon. The helicopter ride was exciting but I had experienced exciting rides at Disneyland.

Of my varied experiences at the Canyon, I can say that they were all good. But the slower and quieter modes, including just standing at the rim, let me better experience the true nature of the place.

The Power of Place

There is a reason we build churches, cathedrals, and synagogues. There is a reason architects designed an impressive Federal Capitol building, sited it on a hill, and a reason the Lincoln Memorial faces the Capitol building directly across an impressive reflecting pool. They designed these places to inspire, to be special places set apart from the normal and the routine. The power of these places brings our consciousness to another level. Joseph Campbell gave this example:

> I walk off Fifty-first Street and Fifth Avenue into St. Patrick's Cathedral. I've left a very busy city and one of the most economically inspired cities on the planet. I walk into the cathedral, and everything around me speaks of spiritual mysteries. …The stained glass windows, which bring another atmosphere in. My consciousness has been brought up onto another level altogether, and I am on a different platform. And then I walk out, and I'm back on the level of the street again. (Flowers 1988, 15).

Joseph Campbell studied how the mystique of a place transforms its visitors. The example here studies a built form, but natural environments can also take our consciousness to another level. The architecture of the Grand Canyon is as inspiring as any built form.

These special natural and built places possess what might be called the *power of place*. People seek solitude and inspiration at the Grand Canyon because it is one of several places on earth that have the power of place.

Feeling the Grand Canyon's Power of Place

Experiencing the Grand Canyon is more than a quick snap shot at the rim, straining up and down its trails, floating the Colorado River, or flying over the abyss. Experiencing the Canyon requires absorbing the natural details into one's body and soul.

There is no best way to experience the Canyon, but it requires intimacy and time. To know the Canyon, a person must take up its essence through all the senses. It might be reasonable to conclude that seeing the Canyon is the most significant part of experiencing it. (For instance, with a 95 percent confidence level, 93.1 to 95.1 percent of visitors reported that natural scenery

was a reason that they visited national parks. A somewhat lesser amount of 88.3 to 93.1 percent reported that natural quiet was a reason (NPS 1995)). However, the other senses are important too. The smells of pine trees and wet soil are important. The feel of an uneven rim path or an inner-canyon trail under foot is part of the experience.

The sounds of the Canyon are very important, possibly only secondary to its sight. Every part of the Canyon has its own sounds. At the river, the subtle sound of water passing rock is heard, as is the powerful sound of rapids. Hikers and boaters often hear rapids before they see them. If a visitor steps but a few yards away from the crowds, river rapids can be heard all the way to the rim, even at sites accessible by park bus or car. The sound of a delicate breeze or a powerful wind through the trees, the swish of a hawk gliding through the air, the metallic cr-r-ruck of the raven—all these are important. My favorite sound at the Canyon is silence punctuated with storm thunder, and then the patter of rain.

The sight and sound of the Grand Canyon are the quintessential parts of the place. The sum derived from the sight, sound, and other sensory inputs creates powerful moods and feelings. The totality of these factors creates the power of place. This power affects the mood and soul of people who linger long enough, or comeback from a time apart, to appreciate it.

Natural Quiet

Indigenous sounds are part of what is called natural quiet. The National Park Service simply identified natural quiet as the absence of man-made sounds. Natural quiet is not necessarily the absence of sound, although it is the absence of human generated sound. It is the condition that allows enjoyment of naturally occurring sounds, the sounds native to an area. Natural quiet, sometimes in the form of primeval silence, is fundamental to the undiminished Grand Canyon experience.

As a person lingers and gradually absorbs the full meaning and feeling of the Canyon, natural quiet grows in significance. Indeed, as people come to know and love the Canyon, especially those that spend time away from the crowds, the quiet is generally recognized as an essence of the experience.

Grasser (1992, 24) states, "Whether the average visitor consciously dwells on the quietness of the park or just takes it for granted, it is one of the premier resources that draws visitors to our parks." She continues, "We know instinctively that the natural quiet is important and has an intrinsic value as do clean air and water."

Although many come to the Grand Canyon to fulfill their curiosity, to take pictures, or just to see the beauty, many others come for contemplative recreation, to experience the aura and power of place. They come to experience the true power of the Grand Canyon. Compromising the natural quiet of the Canyon is compromising the power of the place.

A diversity of environments is important to the human psyche. Opportunities for contemplative recreation in natural settings are essential to many people, if not to all people. Even knowing that such places exist is valuable. To have diversity, we must save some places for quiet, even while letting noise into the bulk of our surroundings. The national parks and wilderness areas are the only places where we can protect natural quiet.

The Park Service has the responsibility to protect natural quiet. This responsibility derives from the *National Park Service Organic Act of* 1916. Congress first directly addressed aircraft noise in the park in the Grand *Canyon National Park Enlargement Act of* 1975. President Reagan signed the *National Parks Overflights Act of* 1987 (Public Law 100-91); the act called for "substantial restoration of the natural quiet" at Grand Canyon National Park.

Natural Quiet Being Lost

Although the Federal Aviation Administration and the National Park Service have issued various rules, the number of aircraft tours over the Grand Canyon has continued to grow at a high rate. This has happened even as there have been caps on the number of hotel rooms, backcountry hiking permits, and user days on the river. In 1987, the year Congress called for "substantial restoration," air tour companies conducted approximately 50,000 flights over the canyon. In 1996, the U.S. Air Tour Association, an industry lobbying group, reported that sightseeing companies were responsible for 117,000 flights annually at the park. Thus, in the nine years after the 1987 Congressional action, the annual number of air tours more than doubled. Former park superintendent Rob Arnberger reported that the number of tour flights at the Canyon had increased to 132,000 in 1998. Through the use of flight free zones, and early morning and early evening curfews, the noise has moved around, but it has not diminished.

As the world gets more crowded in general, the skies over the Grand Canyon are getting ever more crowded. Near the air tour routes, the noise is essentially continuous. Even in the most quiet parts of the park, natural quiet has been compromised. If Congress designated "One Square Inch of Silence" for Grand Canyon National Park, as Gordon Hempton suggested (Little 2000), it is doubtful that it could be realized.

The NPS defined "substantial restoration of natural quiet" thusly: "substantial restoration requires that 50% or more of the park achieve 'natural quiet' (i.e., no aircraft audible) for 75–100 percent of the day" (parenthetical note by NPS). (The term "day" means 7:00 AM to 7:00 PM.)

Under this definition, substantial restoration of natural quiet could exist with half the park lacking natural quiet 25 percent of the day. The other half of the park could be totally without natural quiet and could have any high level of noise 100 percent of the day. This definition would result in a time-area proportion of 37.5 percent natural quiet (½ x 75% + ½ x 0%).

The Federal Aviation Administration (FAA) admits that even this noise-biased definition of substantial restoration is not being met and they have no plan to meet the requirement in the foreseeable future. Additionally, they are trying to average the non-tour season sound level with the peak season noise. This would allow even more noise in the summer than the current standard.

A Call for Action

The time has come to protect the power of the Grand Canyon. The National Park Service, in cooperation with the Federal Aviation Administration, should take the following actions:

1) *Finite Number of Tour Rides*—Put a permanent cap on the number of air tour rides over Grand Canyon National Park. There is currently a temporary cap but it is at a high level and has several loop holes. The number of flights should be at the level it was when Congress first addressed aircraft noise in the Park—1975. At the very least, the level should be at the level it was when Congress called for "substantial restoration of the natural quiet"—1987.
2) *Curfews*—The existing early morning and late evening curfews should continue.
3) *Flight Free Zones*—The area of flight free zones should be increased until natural quiet is "substantially restored" *every day of the year*.
4) *Quieter Technology*—A gradual transition to quieter technology should be part of the solution. Quieter technology aircraft are commonly used in Europe. A primary criterion for tour aircraft should be noise emissions. If certain types of aircraft can not closely match the quieter technology aircraft, they should be phased out.

Conclusions

Some places have special power due to their constructed or natural qualities. This *power of place* is especially evident at the Grand Canyon. Things that change the natural characteristics of the Canyon impact its power of place. If condominiums were built on the mid-Canyon's Tonto Plateau, that would affect the power of place. If a dam flooded the Canyon, that would affect the power of place. Similarly, assaults on natural quiet rob the power of place from the Canyon.

Often the machines that serve us well have the side effect of obscuring natural quiet. As a power generator in church would steal the spiritual power, aircraft in Grand Canyon National Park steal its power. These intrusions that may be common in the frontcountry tend to be absent in the backcountry.

We have the responsibility to maintain a few places where people can address nature face to face. We should reserve a few places for contemplative recreation. Millions of people turn to the national parks for this type of relaxation. Indeed, this is one of the highest needs that Grand Canyon National Park can provide to the American public. Herman (1992, 36) said it well: "If intrusive, urban-type attractions are allowed to squeeze out more passive, nature-oriented forms of recreation, our parks will become little more than government-subsidized summer resorts in quasi-natural settings."

Aircraft noise in the Grand Canyon destroys its power of place.

If you care about this issue, please contact:

- Jim McCarthy: 15040 s. 40th Place, Phoenix, AZ 85044-6747
- NPS: Superintendent Joseph Alston, Grand Canyon National Park, PO Box 129, Grand Canyon, AZ 86023
- FAA: Howard Nesbitt, Special Assistant for National Parks, Flight Standards Service, Federal Aviation Administration, 800 Independence Avenue, SW., Washington, DC 20591; Telephone (202) 493-4981

Jim McCarthy

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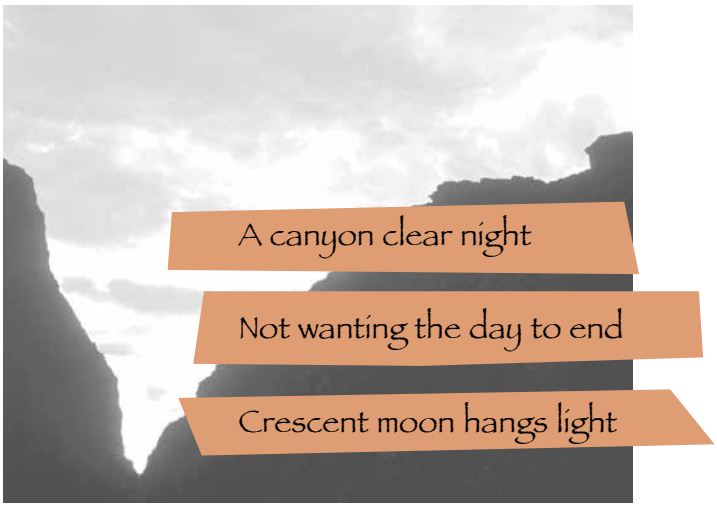


Illness Protocols

I recently attended a meeting hosted by John Collins from the regional NPS/PHS office. This meeting was attended by Park Service staff as well as representatives from the various groups of river users. The main agenda of this meeting was to discuss last summer's illnesses on the river and what we can do to help prevent future illness.

In the last several months this situation has been discussed with other PHS officers and people from Center for Disease Control (CDC). It has been postulated that these illnesses were probably caused by a Norwalk type virus. Because of inadequate reporting procedures and subsequent ineffective response to the illnesses that occurred last summer, we do not have any laboratory sample analysis. Therefore, we can not be absolutely sure what really caused these illnesses.

This brought up several problems with the present procedures regarding the handling of illness on the river and the reporting of these illnesses. I have been appointed as the new NPS Illness Reporting Coordinator. It will be my job to work out the problems we have had in the past regarding illness reporting. I have overhauled the reporting form that was developed by the State of Arizona after the 1994 group of illnesses. I have also developed a set of instructions to be included with the form. In that way everyone will know how, when, and to whom an illness report is to be made. I will be distributing the new form and instruction sheet to all river users before the start of the main 2001 river season.

Since the most likely source of last summer's illness was the river water, proper treatment of river water for consumption was discussed at length at this meeting. Bacteria and protozoa are generally two microns or larger and are easily filtered out by the filters commonly used on the river. Viruses, on the other hand, are in the range of 0.025 to 0.25 microns in size. Since the vast majority of them are not filtered out, treatment with chlorine or iodine is essential to making river water safe to drink. Both steps are essential, since some protozoa are easily filtered but are not affected by chlorine while viruses are not filtered out but are easily deactivated by chlorine. Even though harmful viruses may not always be present in the river system, they are present often enough to warrant absolute adherence to a filtration plus disinfection protocol for treating river water.

Proper hand washing has also been discussed. Hand washing is a very essential procedure to help prevent initial illness or the spread of illness on river trips. The use of the alcohol based hand sanitizers is being encouraged whenever there is not a hand wash station set up. It takes about 30 minutes for a sanitizer to effectively treat river water. Therefore, at lunch stops, it is recommended that people use soap and river water to prewash hands followed by the use of the alcohol hand sanitizer. This is also recommended for food handlers at camp when hand washing is needed before the 30 minute set up time for a hand wash station. We would also encourage to have the hand sanitizer available at hiking or "pit" stops to be used as needed.

As mentioned earlier, I should have the illness form and instruction sheet out by the first part of February. I will also be working on some instructional materials on water treatment, hand washing and food safety. Hopefully these will be out very soon as well. I will be attending the spring GTS meeting and will be meeting with the outfitters before the season gets under way.

People becoming ill on the river is a very serious situation. Not only is it a potentially life threatening problem, but it also seriously affects the whole river experience for everyone involved. Hopefully, with education and cooperation, we can cut down on the prevalence of illnesses on the river. I hope all of you have a very happy and safe year. I look forward to meeting as many of you as possible either on the river or wherever.

Jim Nothnagel

Letters from Grand Canyon—
In the Beginning: the Rocks

The Rocks of the Grand Canyon area form a great stone book upon which the birth and development of the Colorado River have been written. The story of these rocks defines four magnificent volumes, each covering a specific time and circumstance, which we can read in the rocks today. These circumstances and their consequences have had a major influence on the landscape we see before us; a landscape the River has carved through ceaseless toil. In this *Letter* we examine these volumes in some detail to reconstruct the great book upon which the River continues to inscribe its story. The volumes describe the building of Grand Canyon's rock layers—long before the Canyon itself was carved.

Volume One: *Rocks of the Inner Gorge—Early to Middle Proterozoic Rocks and the Period Before Life*

This volume deals with the somber and ominous rocks of the Grand Canyon's Inner Gorge, a place that somehow always conjures in me visions of Dante's Inferno: *Lasciate ogni speranza voi che 'ntrate…* "Abandon hope all ye who enter…" In reality, these rocks are not restricted to the Dantesque Inner Gorge but are present throughout the region at depth, forming a basement to the overlying younger rocks.

The time covered by this volume ranges from about 1,400 million years ago (my) to about 1,750 my (1.4 to 1.7 billion years ago). One recently obtained age of 1,840 my is the oldest reported so far. These numbers are refined as more radiometric ages are obtained, but the basic time interval is well established and is part of what geologists designate the Early and Middle Proterozoic. The rocks of the Inner Gorge belong to two families: plutonic—igneous rocks such as granite that were intruded into surrounding rocks while in the molten state, then solidified in place; and metamorphic— preexisting sedimentary, volcanic, or plutonic rocks that have been changed, or metamorphosed, into foliated or banded schist or gneiss by heat, pressure, and deformation.

During the period represented by this volume, the North American continent was busy growing southward and westward by incorporating new rocks at its leading edge. This edge now forms the rocks of the Inner Gorge, which are thus testimony to the most protean expression of Manifest Destiny, or Westward Expansion.

The rocks of the Inner Gorge contain minerals indicating that the temperature and pressure at which they formed were high. Thus, these rocks must have formed under conditions where such temperatures and pressures are found. The traditional view has been that these rocks, after being formed near the continent's edge as shale, sandstone, conglomerate, and lava flows, were deformed into a great mountain chain, much like the Alps or Himalayas of today. Such chains are formed when two rigid continental plates collide and crumple. Thus, the overlying mountain mass would have produced the pressure and temperature indicated by the minerals.

More recently, scientists have proposed that Inner Gorge rocks were instead formed by the collision of a relatively thin and dense oceanic plate, complete with island arcs, with the thicker but less dense continental plate of North America. Collisions of this type are going on today in the western Pacific Ocean and result in subduction—the sliding of a dense oceanic plate under a less dense continental plate. This mechanism generates the temperatures and pressures recorded in the minerals by dragging material to depth rather than by accruing the weight of a mountain over it. The end result is the expansion of a continent through welding of island arcs to its leading edge. So the rocks of the Inner Gorge give us a glimpse of an ancient underworld, though not quite the one envisioned by Dante.

Volume Two: *Rock of the Grand Canyon Supergroup—Middle to Late Proterozoic Rocks and The Earliest Evidence of Life*

In time, the island-arc collisions of Volume One came to an end. The region was lifted above sea level, and erosion lasting hundreds of millions of years set in wearing down all high areas into a vast plain upon which the events of Volume Two were then written.

These events differ greatly from those of Volume One because they produced mostly sedimentary rocks rather than the igneous and metamorphic ones characteristic of the previous age. Igneous rocks are represented only by the Cardenas basaltic lavas in the eastern Grand Canyon, and the great sills well exposed at Hance Rapid and near the mouth of Tapeats Creek. But the greatest difference is that the compressive forces characteristic of Volume One, and resulting from plate collisions, were replaced by extensional forces.

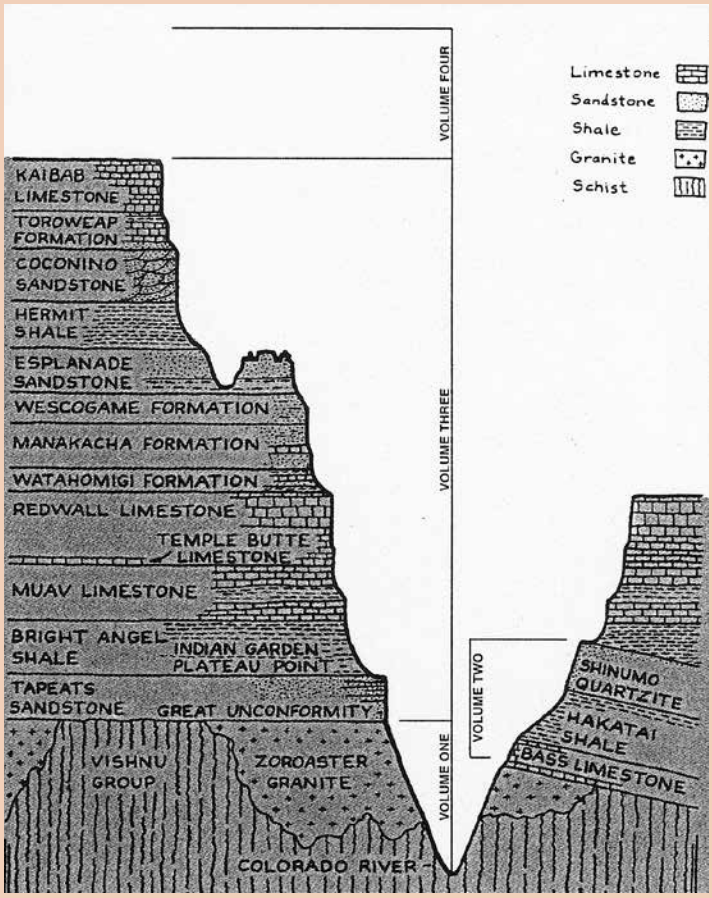
The extension produced basins in western North America. The basin containing the Grand Canyon region sank about as fast as sediments filled it resulting in an accumulation of sediments nearly three miles thick which record a near-sea-level environment of deposition. This can only occur if the rate at which sediments accumulate matches that at which the basin floor sinks.

The rocks of Volume Two record two things of great importance to the development of life. First, many of

these rocks are red, indicating oxidation of iron. This in turn points to free oxygen in the atmosphere, which is indispensable to most life as we know it. This had not been the case earlier, when any life present was anaerobic. Second, the rocks contain fossilized algae, the earliest forms of life known in the Grand Canyon. Many scientists believe that the near-simultaneous appearance of free oxygen and the evolution of aerobic (oxygen-breathing) life is not a coincidence.

When was Volume Two written? This is a difficult question because the volume contains so few rocks that can be dated. We can reasonably estimate that deposition began sometime between 1,200 and 1,300 my. Consequently, Volume Two probably spans the time between about 1,250 and about 850 my—Middle to Late Proterozoic.

Some time after the rocks of Volume Two stopped being deposited (about 850 my), and before the rocks of Volume Three started to be deposited (about 560 my), the older rocks of Volumes One and Two were tilted along great faults, forming ranges and intervening basins possibly similar to those in the Great Basin of today. In due course, this landscape was also planed down by erosion, forming a remarkably smooth surface of regional extent. Owing to the tilting and erosion, the rocks of Volume Two were only preserved as wedges in what had once been the basins. In what had been the ranges, the rocks were stripped off completely, and the erosional surface was underlain by rocks of Volume One. As a consequence this erosional surface, commonly called "The Great Unconformity," represents a huge interval of time for which we have no rock record. Different amounts of time are missing in different places: where rocks of Volume Two are preserved, 290 my (850 to 560 my) are missing; where such rocks are not preserved and rocks of Volume One are in direct contact with those of Volume Three, 840 my (1,400 to 560 my) are missing. This is half again as much as the entire time between the beginning of deposition of the Paleozoic rocks of Volume Three and today. In other words, the time missing equals one and a half times the period it has taken life as we know it to evolve from its very beginnings.



Geologic Section. Courtesy of David Thayer.

Volume Three: *The Rock of the Canyon's Walls—Paleozoic Rocks and the Explosion of Life*

Throughout Paleozoic time, the area of the present Grand Canyon, and indeed of much of the Colorado River, was a region of low relief close to sea level. This position made the area very sensitive to the many sea-level changes that occurred during this time. When the sea level rose, the area was flooded by shallow seas teeming with life, and the seas deposited sediments. The layered walls of Grand Canyon record these events in minute detail. When sea level dropped, the area emerged above water, no sediments were deposited, and some of the sediments that accrued earlier probably were eroded; consequently, much of Paleozoic time is not represented by rocks in the Grand Canyon. Only later in the time interval were non-marine sediments deposited, partly in low-relief plains created and traversed by rivers, partly as dunes, blowing before the wind. Three characteristics of the rocks of Volume Three have a profound influence on the formation and architecture of the Grand Canyon:

1) On the whole, the rocks are resistant to erosion, which encourages the formation of a canyon (rather a valley's gently sloping sides)
2) Softer layers are interspersed with tougher ones, resulting in the distinctive cliff-and-slope topography (soft layers erode into slopes; tough layers form cliffs)
3) The rocks are essentially horizontal, giving rise to the

majestic cliff bends that are an essential aspect of the Canyon.

Perhaps the most striking event recorded in Volume Three is the explosion of life. Whereas in Volume Two life forms were few and simple, in Volume Three they became many and complex, conquering sea and land alike.

Volume Three began with the incursion of the sea from the west around 560 MY, and ended with the withdrawal of another sea about 250 MY. The events that follow lead us more directly toward our main business—the development of the present landscape and the drainage systems that carved it, which will be discussed later.

VOLUME FOUR: *Rocks Deposited and Removed from Grand Canyon—Mesozoic Rocks and the Age of the Dinosaurs*

Whereas Grand Canyon's Paleozoic rocks (Volume Three) record primarily marine environments and only subordinate terrestrial ones, the opposite is true for the rocks of Volume Four, which are primarily terrestrial and span the time from 250 to about 60 MY—the Mesozoic. Also included in this volume is a great deformation whose final episodes went on until the Early Tertiary, about 50 MY. The rocks of Volume Four, once present at Grand Canyon, were thousands of feet thick, but have since been stripped away. Fortunately, they are preserved over much of the Colorado Plateau, where they form the colorful and unique country of canyons and mesas for which the Plateau is famous.

The characteristic deposits for this time interval are claystone, mudstone and sandstone deposited in low-relief alluvial plains. Even more notable are the great sheets of cross-bedded eolian (wind deposited) sandstone, testimony to vast dune fields that covered the region time and again, and are now represented in great sandstone walls such as those of Zion National Park. Marine deposits are present here and there indicating that the area remained close to sea level for most of this interval.

Near the beginning of Volume Four, great volcanic events occurred beyond the horizon, but close enough that the produces blew or washed into the Grand Canyon region. Upon weathering into colorful clays, now forming the Painted Desert, these materials made for fertile ground, encouraging the growth of great trees whose petrified trunks still litter the ground in abundance. The habitat proved congenial to a variety of land-dwelling animals, including reptiles of all sizes, notably (in the later chapters of Volume Four) the Terrible Lizards so dear to schoolboys and film directors. It is also during this time that certain reptiles took to the air, opening up possibilities for mischief previously only dreamt of. Insects, always more successful than anyone else, had, of course, achieved this feat long before.

The rocks deposited during this time have great impact on today's regional landscape because they consist characteristically of alternations of hard and soft strata. Upon being exposed to erosion, the soft strata erode rapidly, undermining and distressing the overlying hard strata. The result is a succession of great regional cliffs and intervening benches—Chocolate Cliffs, Vermilion Cliffs, White Cliffs, Gray Cliffs, and Pink Cliffs—which collectively form the Grand Staircase; each cliff corresponding to a hard layer, each slope and bench to a soft one.

Near the end of the Volume Four the sea reappears in force, but this time not from the west as it had previously, but from the east, earning the name, "Interior Seaway," and marking a major period of deformation that brought to an end 500 million years of tranquil stability. In the final chapters of Volume Four, starting in the Late Jurassic (about 140 MY), but mostly during the Cretaceous and spilling into the beginning of the following Tertiary, that is to say, between about 70 and 50 MY, the Earth grew restless again owing to pressures originating in yet another collision of plates far to the West. On the Colorado Plateau, this took the form of upwarps and folds—the Kaibab Plateau, Echo Cliffs, Circle Cliffs, Comb Ridge, Rapplee Anticline and other picturesquely named features. Overall, the Plateau took the shape of a great saucer, whose upturned western and southern rims consisted of mountain ranges, long gone but still evidenced in their ruin by sheets of debris eroded and shed onto the Plateau. The beginning phases of this deformation also caused warping that allowed the Interior Seaway to flood the land, resulting in deposition of strata such as the somber Mancos Shale. Eventually, the sea retreated, leaving behind residual lakes in low spots. But these lakes, and their influence on the Colorado River, are the subject of the next *Letter*.

Dr. Ivo Lucchitta

This is the fourth in a series of "Letters from Grand Canyon" by Ivo Lucchitta that will appear in future issues of the BQR.

Riparian Restoration at Lees Ferry

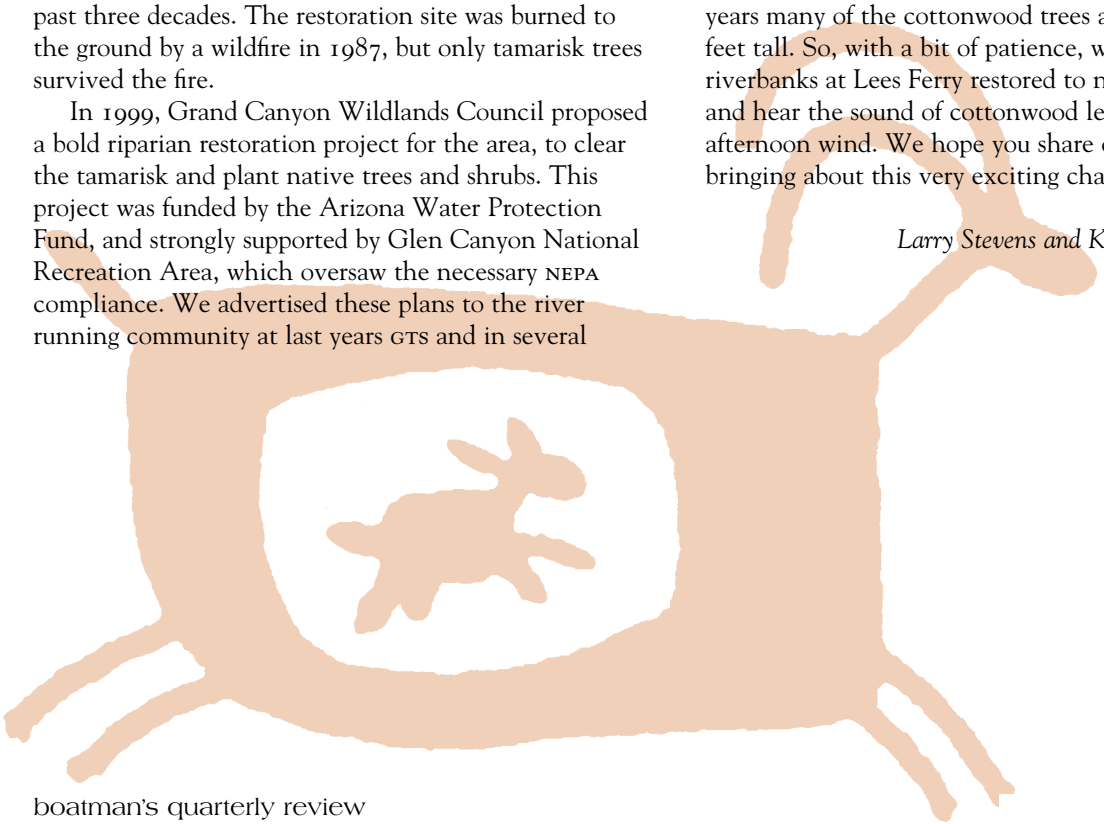
On a snowy February night following a crowd-raising talk, we joined conservationist Dave Foreman over a beer at Beaver Street Brewery in Flagstaff. An aspiring young activist asked him what the Sky Island Wildlands Network, a new landscape-scale conservation plan for southeastern Arizona, southwestern New Mexico, and northern Mexico, offered the region's citizens. He replied simply: "…an opportunity to welcome the natives home—jaguar, Mexican wolf, thick-billed parrot." What he spoke of is ecological healing: "Saving the Pieces, Healing the Wounds," an expression Grand Canyon Wildlands Council President Kim Crumbo borrowed from Aldo Leopold's prescient writings. This is the effort to "rewild," to restore native species in naturally functioning ecosystems. David Brower once said "You put a 're' in front of it, and I'm for it." Here in the Grand Canyon Ecoregion, we can start by restoring ecosystem function and "welcoming home" top predators and wide-ranging species—river otter, gray wolf, Colorado pikeminnow.

Your next visit to Lees Ferry may hold a bit of a surprise: the riverbank downstream from the launch ramp is no longer dominated by non-native tamarisk. Historical photos from the 1870s through the 1920s clearly show large cottonwood and willow trees along the shoreline at Lees Ferry, but tamarisk colonized the terraces after large floods from the 1930s until the completion of Glen Canyon Dam. A few old willow trees still remain; however, no successful establishment of native trees has been observed there in the past three decades. The restoration site was burned to the ground by a wildfire in 1987, but only tamarisk trees survived the fire.

In 1999, Grand Canyon Wildlands Council proposed a bold riparian restoration project for the area, to clear the tamarisk and plant native trees and shrubs. This project was funded by the Arizona Water Protection Fund, and strongly supported by Glen Canyon National Recreation Area, which oversaw the necessary NEPA compliance. We advertised these plans to the river running community at last years GTS and in several articles in the BQR. We invited those who regularly use the Ferry to a meeting a couple of months ago to discuss short term management issues. From this meeting we agreed to proceed with the plan, and: 1) leave a small stand of tamarisk for shade for river runners right at the launch ramp; 2) maintain access to the river bank for fishermen, and leave a couple of areas open for private river runner camping.

In early February 2000, Grand Canyon Wildlands Council, Phillips Consulting and Flagstaff Native Plant and Seed removed ten acres of this non-native weedy tree along the river. We cleared the land with a D-7 Cat, leaving in place the big piles of river driftwood that had been hidden in the dense tamarisk growth. Following clearing, the riverbank terraces are being replanted with native Fremont cottonwood and Goodding willow, as well as other native trees and shrubs. The stock for the 1,500 plantings were primarily taken from the vicinity of Lees Ferry and propagated in the Flagstaff Native Plant and Seed nursery in Flagstaff. The planting will be completed by May, and the new plants will be watered for the next two years, and carefully monitored for survivorship, growth and bird life. We are fencing each tree as protection from beaver, rabbits and deer. Based on his experiences with a 250 acre riparian restoration project in Parker, Arizona, Fred Phillips expects the new cottonwood and Goodding willow saplings to grow to more than ten feet in height within two years, large enough to be weaned from the watering system. Within three years many of the cottonwood trees are likely to be 20 feet tall. So, with a bit of patience, we will soon see the riverbanks at Lees Ferry restored to native vegetation and hear the sound of cottonwood leaves blowing in the afternoon wind. We hope you share our enthusiasm in bringing about this very exciting change.

Larry Stevens and Kelly Burke



Tales Tools Tell

A couple of years ago, I received an unsigned letter. Typed. No postmark. No return address. Among other things, the letter writer described the discovery of some unusual wooden implements in a remote part of the canyon. The anonymous author recognized there might be some scientific interest in these items but did not want me or anyone else to know where they were located for fear that the NPS would find and remove them.

The letter included several color slides, each view carefully selected to prohibit any recognition of the setting or photographer. The slides showed three hand-carved paddle-like objects. One had a long, curving, tapering blade about 30" long and a slim cylindrical handle of similar length that ended in an oval knob. The other two were stubbier, with long straight blades and stout cylindrical handles terminating in unmodified blunt ends. The letter stated that the author had found these tools on the north side of the Canyon more than a mile from the river. (That certainly helps to narrow down the possibilities!)

I had never seen anything like them, and I did not know what their original function could have been. They did not appear to be designed for paddling boats, and the setting they were found in—over a mile from the river—supported this impression. They did not resemble typical prehistoric farming implements either, which usually consisted of simple hardwood digging sticks about four feet long, with sharpened, fire-hardened, chisel-like tips. The author of the letter thought that they might have been used for digging mescal roots, as they showed slight wear on the edges and resembled implements reportedly used for that purpose in Baja Mexico today. However, I had never heard of this particular type of tool used for digging mescal (Agave) in the Southwest, and to my knowledge, no similar tools had been found in the Canyon, despite the importance of Agave harvesting to the prehistoric and historic Native occupants of the region. Certainly some type of function related to food procurement seemed most likely, but what?

For help in solving the puzzle, I went to the library and dug up the oldest ethnographies I could find. Fortunately for us, during the late nineteenth century and first decades of the twentieth, numerous young aspiring anthropologists, convinced that traditional Native American cultures would soon be extinct, took it upon themselves to record the everyday items and customs of so-called "vanishing" Native America. The individuals who compiled these reports didn't always appreciate what they were being told, but they dutifully wrote down the information, for the benefit of you and me and the living descendants of those traditional cultures. We should be grateful for their foresight, blind though they may have been.

As I paged through Alfred Kroeber's *Walapai Ethnography* (1935), Leslie Spier's *Havasupai Ethnography* (1928), Isabel Kelly's *Southern Paiute Ethnography* (1964), and rummaged farther afield in Spier's *Yuman Tribes of the Gila River* (1933) and Julian Steward's *Ethnography of the Owen's Valley Paiute* (1933), I came upon a lot of fascinating information, including many descriptions of wooden tools and their uses, but none of them fit the images in hand. The closest approximation I could find was Spier's description of a Havasupai hoe, "a wooden spade-shaped affair with a disproportionately long narrow blade with a handle in the same plane… used to scrape up the sand into ridges when irrigating and for scraping out weeds." Many library hours later, though, I struck real paydirt in Castetter and Bell's *Yuman Indian Agriculture* (1951). A sketch illustration in the chapter on "agricultural implements" closely matched the slide image of the tool with the long curving blade. Later, I discovered an original version of this illustration in Forde's *Ethnography of the Yuma Indians* (1931), and a similar photograph in Kroeber's *Handbook of California Indians* (1925).

From these books, I learned that the tools with long, curving blades were common among the Yuma, Cocopa and Mohave along the lower Colorado River. The Yuma Indians called them "analtahau'k". Castetter and Bell called them "side-scraper hoes" and reported that they were used exclusively for weeding. According to Castetter and Bell, "The operator worked in a kneeling position, making sidewise thrusts by which he cut

weeds at the ground line or loosened soil around hills of plants." I never did find a good illustration of the straight-bladed tools, but from Omer Stewart's *Culture Element Distribution of the Ute and Southern Paiute* (1942), I learned that the Shivwits and Kaibab Paiutes used hoes with "spatulated ends" for weeding, probably quite similar to the two shorter implements in the slides.

From these scraps of archival information, I tentatively came to the following conclusion: these were agricultural implements, probably used for weeding in the manner described by Castetter and Bell, possibly cached by Shivwits or Kaibab Paiutes (based on their location north of the river), perhaps sometime in the 1800s. The dating is highly speculative, based purely on the fact that this was the time when mounting pressures from Spanish slave raiders and later Mormon settlers forced the Southern Paiute out of their prime farming areas near today's Utah-Arizona border and into the remote reaches of inner Grand Canyon. The cache could be much older, however. Without being able to examine or date the implements directly, it is difficult to say anything more conclusive. One interesting implication of this reconstruction is the possibility that Southern Paiute gardeners acquired their agriculture know-how from lower Colorado River Yuman-speaking tribes, rather than from the Hopi, as anthropologists have previously assumed.

For the longest time, I couldn't decide what to do with these scraps of esoteric speculation. The anonymous letter writer clearly did not want the implements to be found, nor did he/she seem to want me to do anything with the information other than know they were there. On the other hand, after looking through the catalog records and archives at Grand Canyon National Park and the Museum of Northern Arizona, I could find no record of any similar tools having ever been collected or reported from the Canyon. Ultimately, it seemed important to write this down, so that others may know that such tools were once used and cached in the Canyon, and so the person who found these unusual artifacts can learn a little more about them.

Sometimes I pull out the slides and stare wistfully at those old tools, thinking how incredible it would be to examine them more closely someday. I would like to identify the wood (hard or soft species? local or imported?), find out how old they *really* are, whether there is pollen embedded in the wood that could reveal what plants were growing in the fields when the tools were used, whether there is wear or polish on the blades that could confirm their function, or other marks that could tell us more about how they were made. Mostly, though, when I stare at those celluloid images, I just feel thankful that the canyon is still big and wild enough to hide such rare and fragile things, carefully stashed where their owners left them, cradled in the canyon's folds, full of stories still untold.

Helen Fairley

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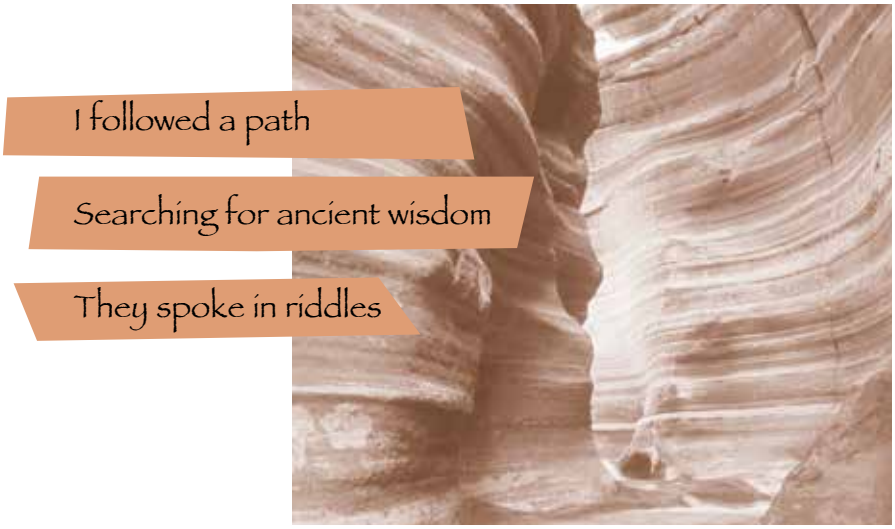


First Aid Changes

As most of you are aware the 2001 Commercial Operating Regulation (COR's) have been implemented. The big change is in First Aid requirements. The purpose of the changes is to shift the focus of Emergency Medical Service (EMS) training to Wilderness First Aid, which is becoming the standard for the industry. The previous First Aid requirements (American Red Cross First Responder) are geared to First Aid in an urban setting (ambulance readily available). This training simply does not prepare one to deal with medical emergencies in the Grand Canyon. Although there will be exceptions to the new requirements, as noted below, the purpose of the changes is to have all guides certified in Wilderness Advanced First Aid (WAFA) and all trip leaders certified as Wilderness First Responders (WFR).

In the past few years many guides and trip leaders have certified in Wilderness Advanced First Aid and/or Wilderness First Responder. This has greatly improved the care given to accident victims. Assessment of the victim has improved dramatically. As a result, better decisions are being made as to whether transportation/ evacuation is necessary. Guides following Wilderness protocols and completing SOAP notes are following protocols similar to those of the NPS EMT's and Paramedics. This "continuity of care" results in improved patient outcome.

The new requirements are as follows:

Guides:

Must be certified in Wilderness Advanced First aid (WAFA) through a program sponsored in the U.S. Higher emergency medical certifications obtained in the U.S. will also qualify (EMT, WEMT, Emergency Medical Doctor).

Guides certified through the American Red Cross First Responder course prior to December 31, 2000 may continue guiding as long as that certification does not lapse. (In other words as long as your First Responder does not expire you are okay. The idea though is to get everyone to go through WAFA rather then continue to recertify in American Red Cross First Responder.)

Trip Leaders (TL):

Must be certified as a Wilderness First Responder (WFR) through a program sponsored in the U.S. Again, higher emergency medical certifications obtained in the U.S. above WFR will also qualify (EMT, WEMT, Emergency Medical Doctor).

Trip leaders certified through the American Red Cross First Responder course prior to December 31, 2000, also qualify as long as that certification does not lapse. (Again, as long as your First Responder does not expire you are okay. The idea though is to get trip leaders to certify in WFR rather then recertify in American Red Cross First Responder.)

Current Exceptions:

Any certified guide or TL possessing a current guide card is permitted to continue guiding under the 1999 certification requirements until their current guide license expires.

Any guide or TL with a current guide card needing to recertify their guide license prior to January 1, 2002, will be permitted to use the 1999 certification requirements.

Any guide or TL with a current guide card who recertifies their guide license after January 1, 2002, will be required to meet the full requirements of the 2001 COR's.

Michael McGinnis
ACTING WILDERNESS DISTRICT RANGER

A Narrative of Desired Future Resource Conditions for the Colorado River Ecosystem in Grand Canyon

The following statement was written by GCRG's representatives in the Adaptive Management Program (AMP) with reviews and editing by the GCRG Board of Directors, to provide input into development of the Adaptive Management Program Strategic Plan. It will be integrated into a common narrative vision for future resource conditions presently being put together by all stakeholders in the program. We are open to your comments.

GCRG offers this statement to guide refinement of Management Objectives for the AMP Strategic Plan. We believe this statement is consistent with National Park Service policy, tenets of conservation biology, and goals of the river-runner constituency in Grand Canyon National Park.

We support a scientifically grounded definition of "ecosystem management" as the guiding principle for adaptive management, and a comprehensive understanding of the economics associated with management of the dam and environment downstream. This understanding should include local, regional and national valuation of hydropower, recreational, and social values relating to the Colorado River ecosystem.

Our near-term vision for river and dam management includes, but is not limited to:

1) a dynamic river ecosystem characterized by ecological patterns and processes operating within their range of natural variability.
2) numerous campable sand bars distributed throughout the canyon within a scour zone between the 8,000–35,000 CFS level, built and maintained by habitat maintenance and beach-habitat building flows timed to maximize utilization of sediment input.
3) annual variations in water temperature, quality, and chemistry that parallel natural patterns, with contingency plans for mitigation of any unforeseen introduction of hazardous materials from outside sources.
4) a diverse "new high water zone" biotic community dominated by native species, and a healthy "old high water zone" biotic community to help preserve ancient cultural features located in the high terraces.
5) a thriving community of native fishes, mammals, and invertebrates.
6) increased communication and involvement with Native American tribes to better respect and integrate their concerns.
7) preservation and enhancement of recreational opportunities and minimal impact of research activities on the river ecosystem. Wilderness qualities of the river corridor are highly valued for their remarkable length, breadth and unbroken primitive character. Wilderness experiences and benefits available here include natural sounds and quiet of the desert and river, solitude, connection to nature, personal contemplation, joy, excitement and renewal for extended time periods in a unique environment outside the trappings of civilization. This combination of qualities make the river corridor an irreplaceable, one of a kind, national and international treasure.

In the long-term we foresee growing problems from reservoir sedimentation, erosion of fine-grained sediment and subsequent loss of habitat from the river ecosystem. As the Colorado River ecosystem loses its beaches, it will also continue to lose value as a world-class recreational resource. Our unsustainable use of this river and its ecosystem is becoming more obvious. Consequently, we have a greater responsibility to advise the Secretary on both short and long-term ramifications of our actions, and provide innovative approaches for establishing sustainable systems. We wish to protect and restore the Colorado River ecosystem, and preserve the unique, highly-valued, but endangered experience opportunities available there for future generations.

Andre Potochnik & Matt Kaplinski

Wisdom of our lives

Time does not stand still for us

Participate—now

Exertional Hyponatremia—
Too Much of a Good Thing

Since 1989, Grand Canyon has been experiencing an ever-increasing rate of hyponatremia. Hyponatremia means low sodium concentration in the blood. Sometimes called water intoxication due to the neurological symptoms, the mechanism is far more complex than simply drinking too much water. This is not just a Grand Canyon phenomenon. Ultra endurance events including marathons, triathlons and even the popular "eco-challenges" are seeing an increase in incidents. Last year, there were 30 documented cases of exertional hyponatremia, seven of which were admitted into the ICU with intracranial pressure (ICP). Although most of these occur with hikers, passengers on commercial/private river trips have also developed hyponatremia.

Let's look at how our bodies respond to a heat challenge situation. Dehydration is a form of hypovolemic shock. Dehydration-volume shock is a progressive disorder that, if unhalted, spirals downward into deeper levels of hemodynamic and metabolic deterioration. Exertion further exacerbates the perfusion pressure in the system. Exercise in a hot environment forces the body to shift large amounts of fluid way from core circulation (brain, heart, and lungs) to the skin and skeletal muscle in order to dissipate heat. This is referred to a core-shell shift. Fluid is also lost through secretion of sweat and from breathing. Sweat can contain as much as 90 mEq/liter of sodium. Compare that with Gatorade which contains only 10 mEq/ liter. The tank gets lower and lower, profusion pressure drops, the hiker's performance drops, fatigue sets in, and you have the beginnings of heat exhaustion. The body in its amazing ability to maintain equilibrium will begin shunting blood from the Gastrointestinal (GI) tract (gut) and other less needed areas. This results in little absorption of food and water from the stomach and intestines—the power bar and Gatorade just sit there. Any guess what happens next… you begin to feel nauseous and sick to your stomach. As volume, shock continues the body will shift from a core-shell movement to a shell-core. The long-term risk of this is soaring core temperatures. Because the maximum rate of gastric emptying is much less than the maximum sweat rate (1.2 verses 3.7 l/hr). Rehydration cannot keep pace with sweat losses under those conditions. This puts you behind the power curve. Rehydration and replacement of electrolytes lost in sweat via oral intake may require 36 hours with occasional urination to complete.

Exertional Hyponatremia

Water intoxication is an old term for exercise induced dilutional hyponatremia or exertional hyponatremia for short. Hyponatremia occurs when the proportion of Total Body Water (TBW) to total sodium is excessive and a hypo-osmolar hyponatremia develops. You can get this and still be dehydrated. How did we get there is the question. Actually, there are several mechanisms coming into play here. The first problem is drinking too much freewater and not replacing lost electrolytes. The second is the spacing of hypotonic fluids in the gut during exertion. The third problem is a syndrome of inappropriate antidiuretic hormone (ADH) response, known as SIADH. All three mechanisms can be working to together.

The Role of AIH

One compensating mechanism of the body is the release of ADH (antidiuretic hormone). It is released by the pituitary gland in response either blood volume or changes in sodium concentration, known as osmolarity. Osmolarity is the concentration of ions in any given solvent. A fall in blood volume causes a release of ADH—to try to get the kidney to conserve more water and bring the volume back up. A low concentration of sodium causes the pituitary to decrease the amount of ADH and you pee out more urine. Thus, low sodium diets help hypertension by decreasing volume.

So what happens when we begin to loss both sodium and volume? The former tells the pituitary gland to decrease ADH and the latter tells it to increase. The result is conflicting messages, but protecting blood volume is a survival mechanism and in the case of a hiker who is dehydrated and hyponatremic, the pituitary will continue to release ADH to hold onto water, worsening the hyponatremia. Hopefully the brain thinks, this joker will stop hiking and find a salt lick soon.

Why then when people are normal volume and hydrated, does ADH continue to conserve water creating a hyper-hydration and dilution of plasma sodium ions? I do not know, but I have some theories. Many hikers at Grand Canyon probably begin their hike in a dehydrated state due to lifestyle influences of caffeine consumption, alcohol intake, etc. Nausea, vomiting, and fear are also potent stimuli for excessive ADH secretion. In each exercise induced hyponatremia case I have seen, there has been at least one of these symptoms. The fear associated with hyponatremia is so severe the patients hyperventilate and have stated that they thought they were separating from their body or floating away from their body and, therefore, they were surely dying. SIADH may be more significant in the development of acute hyponatremia than sweat loss and water consumption. SIADH may be a phenomenon that worsens the patient's situation from mild hyponatremia to coma.

So, let me give you a summary scenario. Hikers come into their hike dehydrated chronically. ADH is circulating. They read in Backpacker Magazine that you need to hydrate yourself while hiking and that these fancy sport drinks are not needed. So they drink and drink and sweat and sweat. Sodium and water is lost through sweat and not replaced. ADH conserves free water, causing blood sodium osmolarity to decrease. Sodium levels continue to drop, serum osmolarity continues to drop. Hyponatremia sets in. Bad things begin to happen. Fluids shifts from outside the cell inside, causing swelling. Brain cells begin to swell, causing increased intracranial pressure and bad neurological changes including headache, confusion, staggered gait, seizures, and unconsciousness.

Let me muddy the waters. Not only will hikers or triathlon participants experience extensional hyponatremia during their hike, but the symptoms sometimes are delayed several hours, usually after the hike or event is over. Remember we talked about the third spacing of fluids in the gut because it is ischemic. This free water often sits for hours. Delayed dilutional hyponatremia occurs when dehydration shock has occurred and the patient probably has had severe gut ischemia with minimal water absorption in the intestinal area. The patient now consumes a large quantity of water or exercise drink. Add that to what was stored in the gut and you have a high level of hypotonic fluids. You rest, your gut is no longer ischemic and releases hypotonic fluid into the bloodstream, diluting sodium levels, and bingo you start seizing in camp, long after the hike is over.

Approach to Patient Assessment

Physical exam will reveal normal vital signs. Temperature is normal or low. Mental status changes are the key to assessment. Early symptoms include general malaise, fatigue, headache and nausea. As you can see these are very similar to heat exhaustion. That is where the assessment criteria gets tricky. If you treat a heat exhausted patient with hydration and rest, they will get better. If you treat a hyponatremic patient with fluids and rest, they will get worse. Although we have never had a death a Grand Canyon, there was a recent fatality on a army base, where a recruit in boot camp died of cerebral and pulmonary edema after army medic mistook his hyponatremia for severe heat exhaustion and forced fluids on him.

Because hyponatremia looks so much like heat exhaustion in its early stages and can mimic heat stroke once the person seizures, the park rangers have come to rely on portable blood chemical analysis in the field. These machines will measure the level of sodium in the blood stream and give us a better idea of what is going on. They are expensive but worth it.

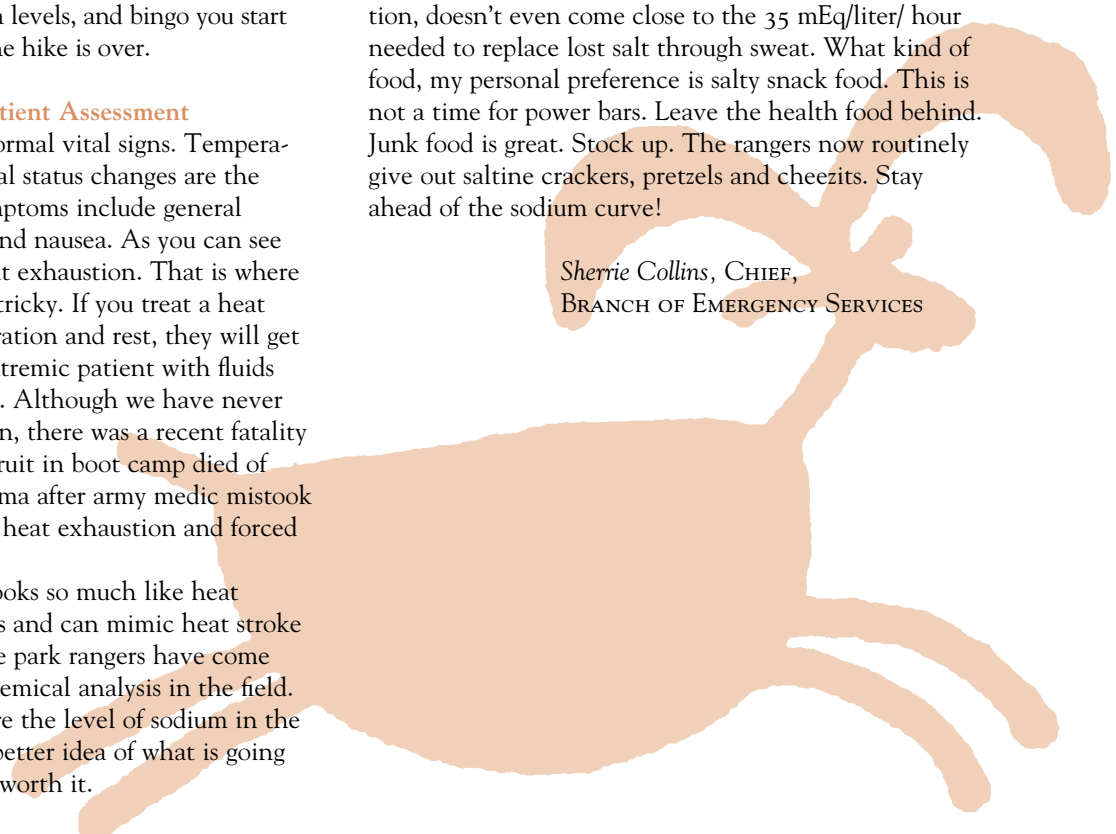
Management of Exertional Induced Hyponatremia

- Place patients in a sitting up position. Lying down could increase intracranial pressure and accelerate cerebral edema. If the patient is P or lower on the AVPU (Alert, Verbal, Pain, Unconscious) scale, place them in a left lateral position. Watch for vomiting. It should be an anticipated problem. Patients are prone to aspiration.
- Increase sodium levels slowly.
- Keep the patient calm. Fear along with a gloom and doom attitude stems from a detached, almost floating sensation these patients experience allowing an onset of anxiety induced hyperventilation syndrome to ensue. Anxiety induced hyperventilation should be discouraged.
- Watch for seizures. If patient seizes, airway management is a top priority. Once the patient seizes, they will remain ALOC.

So what is the take home message…*Prevention is the key*.

Stay hydrated and nourished. Once hiking, keep a steady intake of water or electrolyte replacement drink and eat. I cannot emphasis this enough. Sport physiologists assume people are eating and therefore do not need commercial electrolyte replacement. The truth of the matter is that people don't eat when they are hot, and they don't eat once they become dehydrated and sick. Gatorade, which contains the highest sodium concentration, doesn't even come close to the 35 mEq/liter/ hour needed to replace lost salt through sweat. What kind of food, my personal preference is salty snack food. This is not a time for power bars. Leave the health food behind. Junk food is great. Stock up. The rangers now routinely give out saltine crackers, pretzels and cheezits. Stay ahead of the sodium curve!

Sherrie Collins, CHIEF,
BRANCH OF EMERGENCY SERVICES



O'C Dale

1967, my folks did a trip around the western United States, and on the way home they stopped off in Park City and made reservations for a family vacation at Christmastime to stay there and go skiin' for a couple of weeks. They figured my brother was goin' to law school, and I was a senior in high school then, and this might be the last chance to get the whole family together for a vacation. This was before Park City boomed—it was still a sleepy little mining town with a fairly new ski resort, and it was quiet… When we went up there to ski, it was December of 1967—I believe. The ski patrol would all drop by at the end of the day at Dr. Orris's, at "Old Miner's Hospital" [where we were staying]. One of the ski patrolmen was Ron Smith. So that was our first—you know, they talked about the river. Anyway, that vacation ended, and everybody went back to school, and my folks went back to Riverside. Then it was the next year that I went into the service. While I was in Vietnam, my father would send me stuff he was doing. Bill Belknap was doin' the original guidebook, and he met my father through Dr. Orris. Bill came down to Riverside, checked out my dad's operation. If you know Bill, he's very, very thorough—no stone goes unturned… He was starting the guidebook. He wanted it out for the Powell Centennial, for 1969.

Anyway, after they had run the first copies off the press, my father sent me one. I get a guidebook, Grand Canyon River guidebook there in Vietnam. And I looked through it, and of course, just jokingly, I'd say, you could have sent me a map of a garbage route out of L.A., and it would have looked interesting, as opposed to where I was and what I was doin'…

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Even though we have long passed the days of ever knowing (or even wanting to know) who the best Grand Canyon boatmen are, O'Connor Dale would probably show up on the hall of fame list of just about everybody who's ever watched him in action. He's unflappable, low-key, keeps his sense of humor, keeps things in perspective, stays humble… even after four hours of interview time and at least that many beers, O'C never did talk about the nine foot statue of him that stands in downtown Salt Lake City…we had to wait until just before this article went to press to find out about that one (but more on that later).

O'C has worked on the river for thirty years—Ron Smith's Grand Canyon Expeditions, Martin Litton's Grand Canyon Dories, the new Grand Canyon Expeditions Company, and any number of science and government trips. He's famous for not having wild rides (in thirty years he's only had one flip), but even so, we did manage to coax a couple photos out of him where he's off the rowing seat…and a couple stories where the runs were definitely not "plan A."

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I was born in Riverside, California, April of 1948. My father was a printer, along with Regan's dad… I went to junior college in Riverside, and actually after one year of junior college, I was drafted into the Army. in April of 1968. The day I was being inducted, I asked somebody where would we be goin', and he told me North Carolina. Then a Marine recruiter came in needed some volunteers. I asked him where we'd be goin', and he said San Diego. I said, "Oh, I'm still home!" so I volunteered for the Marine Corps. Little did I know I wouldn't see any of San Diego.

I had two months of boot camp, three months of infantry training, and off to Vietnam.

Steiger: Did you know about Vietnam? Was everybody thinkin' about that then?

Dale: Oh, yeah. But I was goin' to school and I thought, "There's no way that I'll get drafted or end up over there." But I was actually goin' to a junior college in San Diego, and I had one real good fun semester. My gpa dropped below 2.0 that you had to maintain for a student deferment, and it was two weeks later. Once my gpa dropped I got my induction notice. "Greetings." (chuckles) Anyway, I was in Southeast Asia from October of 1968 through October of 1969, and got home, got a six-month early out, went back to school.

Steiger: You got shot, huh?

Dale: I got hit in February of 1969. It was actually the Tet Offensive of 1969. The Tet Offensive of 1969 wasn't nearly the Tet Offensive of 1968, but it was their Tet. That's their holiday.

Steiger: But you were out there runnin' around, gettin' shot at for a year before you…

Dale: Well, five months. I was there for five months. After I got hit, I went to a naval hospital in Guam for three months. After that, they sent me back to finish my thirteen-month overseas tour. So I had five more months of goin' back to Vietnam. And late October, I got discharged, went back to school.

Steiger: Pretty hateful, huh? What was your…

Dale: My mos was 0-311, which was a rifleman in the Marine Corps… I was a rifleman, commonly known as a "grunt." They called us grunts.

Steiger: The sense that I got from talkin' to Whale and some of those guys was that it wasn't like there was any clear-cut…

Dale: Goal.

Steiger: Yeah, and it sounded like you'd be out there wanderin' around, and you'd run into these guys, or they'd run into you.

Dale: Right. There were no front lines or anything. It just surrounded you… Actually the daytime in Vietnam, it's a beautiful country, and it was peaceful during the day. It was nighttime—as evenings came on when I was over in Southeast Asia, I just got nervous. That's when it happened. We controlled the day, they controlled the

night. But, you know, still, in the sixties… Like, I didn't get the feeling that we were gettin' our ass kicked. Eventually we would have to get out and lose that war, but later on, as it kept going on and on into the seventies, I was back here, of course, and pretty far removed from it. Of course, bein' on the river all summer…

Steiger: That's about as far away as you could get.

Dale: Yeah, you don't read about it or hear about it. But as it kept goin' on and on, you knew somethin' was wrong. I remember readin' Kim Crumbo's interview, how he said that he was on the Mekong River, and a few months later, he was on the Colorado River. So it sounds like he had a quick transition, too.

Steiger: Yeah, similar kind of thing.

Dale: He was in the thick of it, too, with the Seals… But anyway, I looked through that guidebook, and it looked appealing, but I still was so far removed from the river and stuff at the time. I still didn't give it much thought. I just thought it was kind of interesting, looking through the pictures and the little bit of history that was in it. Rapids didn't mean much to me then, of course. But when I got home in October of 1969, my father and mother had been invited to Buzzy Belknap's wedding, which was in November of 1969, and my dad said, "You oughta come with us." It was up in Boulder City. He said, "You oughta come with us and meet some river people." So I went to Buzzy's wedding, and formally met Ron, and of course a lot of other characters on the river. That's where I first met Dock Marston and all the Belknaps…

My dad's name is Eben Dale, my mother is Dorothy. I have an older brother, Eben III—he's a lawyer in Hawaii now. And I have a younger sister, Debra—she goes by "Naho" she's livin' in Vail now. Dorothy taught school and was a librarian for the Riverside City Schools. My folks always pulled a trailer, and mom would always cook Mexican food—tacos and stuff—for whoever was around. Ron Smith came over and was eating tacos at my folks' trailer there, and I asked Ron for a job. He said, "Well, why don't you do a trip with us this next spring, and see how you like the river, and we'll see how we like you."

Bill Belknap set it up for me to do an April trip in 1970… So anyway, I was actually in school when Bill told me this trip was goin'. I was takin' finals right about the time the trip started, but it worked out where I could hike in at Phantom. And actually, my cousin Regan [Dale] drove me over to the South Rim.

Regan drove me over and we slept out in the car at Yaqui Point, early April, froze our butts off.

Steiger: Had you looked at the Grand Canyon before?

Dale: No.

Steiger: You'd never even seen it before?

Dale: That was the first time I was ever at Grand Canyon… We went to Yaqui Point, camped, slept in the car. And like I said, it was cold. I got up early the next morning and hit the trail, South Kaibab. When I got down to the river, the boats were parked there on the boat beach. Ron Smith was runnin' one boat, Dean Waterman was runnin' the other boat. They were takin' a break at Phantom, we went up and swam in the pool that was there at that time. They waited for some people to come in, and [we] packed up, and downriver we went. Camped at Bass Camp that night, my first camp in the canyon… I remember old Bass Camp… I got off that first trip, and what I remembered was walls and whitewater. And I mean, that was my impression.

But I pitched in and I was kind of an extra swamper that first trip, and worked hard, scrubbed dishes. I didn't know what to do, but I scrubbed dishes a lot, and they liked that. And then I went back to school, finished out that school year in another month or so. And then in June I drove up to Salt Lake and swamped that season. I kind of trained under Dean, did all my trips with Dean Waterman… He was quiet. He wouldn't say much, you kinda had to pick things up on your own—especially runnin' the boat… He let me run, just a little the first trip. By the end of the season, the end of that first year, I ran everything. I didn't have my own boat that first year. I did five trips, swampin'. Then I went back to school again. I was majoring in physical education. I was thinking about going into coaching. And actually the next year I enrolled at University of Utah.

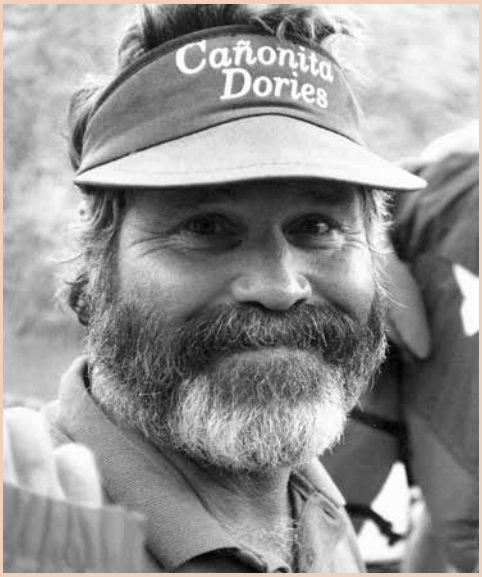
Steiger: Still on the same kinda track?

Brother Eben, father Eben and O'C, on a trip in Grand Canyon

Dale: Yeah.

Steiger: When you think back—I don't know how often you do—but thinking back to your first couple of years, are there incidents or adventures that kind of stand out in your mind? What are the most memorable things that happened that first year?

Dale: Well, that very first year, when I was swampin' that year, they never let me handle too much too soon, so I couldn't get in too much trouble. So I can't really think of [much]. The first time I ran Upset, I was gonna do a turnaround run, swing over and back down. It was low water, Dean was sittin' next to me, and I went right through the hole sideways. (laughter) When we finally popped up, everybody was over on the upstream side of the boat. I was worried somebody was in the river. I looked around and Dean just was grinning. He said, "All's well that ends well!" So I always remembered that.



O'C today

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Dale: That first year in 1970, at the end of the week, we took out at Temple Bar… We do an eight-day trip now, which is pretty much the same schedule, with our jet boat take-out and all that. It's pretty similar to our old ten-day schedule.

Steiger: As far as…? The only difference is you don't spend a day-and-a-half goin' across the lake.

Dale: Right. We'd get to Temple Bar and we'd have three trips maybe comin' in. Six boats sittin' there on this hot asphalt ramp. But after our de-rig, which would be all afternoon at Temple Bar, then we'd head for Salt Lake, get in the next morning sometime. Unload the trucks, clean up. And the next trip out would be the following week, so you had a couple of days off. Then you'd take a few days to pack up. Our trips left on Mondays. They went from Mondays to Wednesdays. I think like on Thursday we'd head for Lee's Ferry. The ramps were always wide open, though. Of course, it was a big ramp then.

Steiger: So you'd go to Lee's Ferry. You'd leave Salt Lake on Thursday and get there that night?

Dale: Usually that evening. Go to bed, get up the next morning, start rigging, take our time. Usually we had three trips going out or something. Rig all six boats, get most of it done that Friday, finish up on Saturday. Then in the afternoon we'd drive up to the North Rim and hang out or somethin' like that. Then Sunday all the guys, Dean or the trip leaders, would all jump in the trucks and drive 'em around, and then meet you. Go back to Vegas, meet the groups, come up on the bus with them on Monday morning.

Steiger: And the crew would be there with the boats.

Dale: Yeah, just hang out. It was actually kinda pleasant in those days. It was nice. It just wasn't crowded at the ramp, I don't know why.

Steiger: So you didn't have truck drivers?

Dale: No, we did all the drivin'.

Steiger: It was like you left with the boats and the trucks, and then did your own shuttle. And then went back to Salt Lake.

Dale: Right. Then that first winter that I started workin', the winter of 1970-71, Ron found these buildings we're in now.

Steiger: Here in Kanab?

Dale: Here in Kanab. Bought them. And then in February of 1971, about five of us—I think Regan and Kenton [Grua]—Regan started then.

Steiger: And Kenton just jumped ship that year from…

Dale: Hatch. He was let go by Hatch, but Ron hired him. Regan and Kenton and Rick Petrillo, and Ollie Lowry [phonetic spelling] and myself and Dean—we built the bunkhouse, closed in the warehouse, the boathouse buildings. Worked right up until April, started runnin' trips.

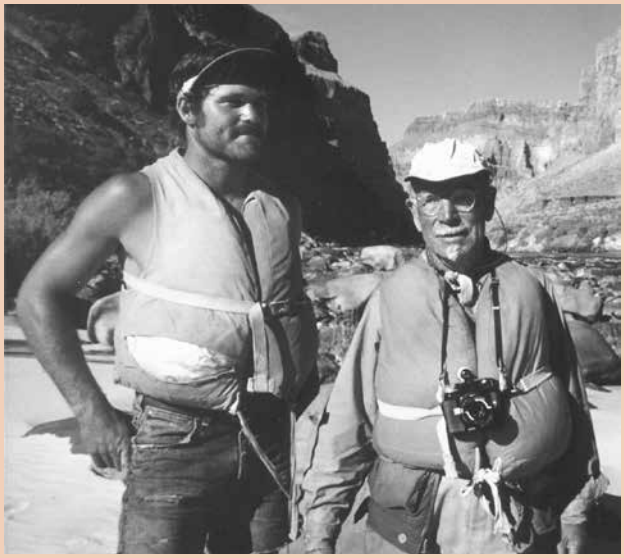
Steiger: Wow. So you worked all winter.

Dale: Or the latter part of winter. It was real nice, just workin' out of Kanab…

But yeah, you know, when we started out, there were a lot of things I look back on, in thirty years, how much everything's changed. It's just incredible… It was an adventure a lot of times. It wasn't like we had it in the bag. But anyway, that first season out of Kanab, that's when I started runnin' my own boat, my second year, spring of 1971, and actually ran a lot of trips that year. I think I probably ran twelve trips that year. College was cutting into my season, so I kind of pushed it not aside, but I let it go for two semesters. I'd pick a winter quarter and go to school, but up to the University of Utah.

Steiger: So at that time, were you still thinking you were going to be a coach, and this was just a hobby?

Dale: Right. Summer job while I was going to school. I think a lot of people thought that way. You know, I



O'C and Dock Marston on a trip in 1971.

mean, that first year, I think our ten-day trip was like $299, that was the cost of it, and I got paid $200 to run a boat for a trip, and I was thinkin'—we all thought this at the beginning, I think: "God, they're payin' us to do this?!" You remember that, when you first started.

Steiger: Ten bucks a day!

Dale: …Yeah, I didn't know what to do with all that money. I was makin' $200 a trip. I loaned money to my brother, who was going to law school. I only needed a couple thousand to get through the winter. And that included a season pass at Alta, which was $125. I'd go back and we lived in "Old Miners Hospital." Actually, one winter or two winters, Regan and I rented Dean Waterman's basement, lived right at the base of Little Cottonwood Canyon, just outside of Salt Lake. Paid Dean twenty bucks a month or somethin', to live in his basement. Wasn't very much. We skied all winter. I went to school part-time.

…Of course every year, things just got better on the river. And guys were stickin' around, like Kenton and Regan. A number of guys were doin' it every year. It became more than a part-time summer job while you were going to school… And of course eventually that's when Grand Canyon River Guides sprung up, because it turned into a career for people, and then people started thinkin' about professionalism. We actually liked it. It got to the point where we didn't like to see those two-year guys… We were gettin' serious about this, and makin' it professional, and making it safer…

In those first few years, it was an expedition, you know. I remember you'd pull into a camp, unload a few things off the boat, it didn't take very long to unload the people's gear and stuff. And we'd send them off to gather wood for cooking on. We'd say, "We need enough wood for breakfast and dinner. If you want a campfire, get a little extra." …There was no such thing as a fire pan. [Toilets were:] upstream, downstream, burn your paper…

And in 1970, 1971, 1972, the canyon was dirty, and gettin' dirtier. It wasn't because of poop—it was toilet paper. And of course the popular camps like Nankoweap… There was a nice camp up above Unkar on the right side, right on the corner, just above the ruins… Some of those camps were getting bad with paper and charcoal. So what I started doin' was I told people, "Bring your toilet paper back." After dinner every night, we'd burn our trash. And I'd tell people, bring your paper back. We started tryin' to regulate… just wrap it up in a little extra paper, throw it in a burn sack we had.

And we always tried to use an existing fire pit, too. But pretty soon you would see one end of the beach, two or three different pits—at the other end of the beach, a couple of pits. The beaches were bigger then, a lot of sand, still. The dam had only been in place six or eight years, and the beaches were pretty nice. But it got pretty bad. And actually, it was outfitters who started haulin' the fire pans. We'd still cook over a fire, but we started carryin' fire pans. Dumped the ashes in the river… And then it was outfitters who first started carryin' toilets. It was outfitters who first started bringing stoves…

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Crystal, there really wasn't a right run in Crystal. The way I was taught to run Crystal, you went down the left side, and there was a big pillow of water coming off the left wall, just above the old hole, the big, huge hole. There was a rooster-tail—we called it the Rooster Tail. It was kind of gnarly all over, but right up the middle, maybe it was this wide, was a smooth slick, and it was a wave, it wasn't a hole. We went down the left, and what worked out, is I put my nose on this water coming off the wall. I just cocked to the left a little, let my nose go up on this water on the wall, just idling, you know—this is a motor rig—and it'd feed you right down into that rooster tail. It was huge. And as you came out of the old hole…

Steiger: So it would feed you right down into the old hole?

Dale: Right into the middle of the hole in this slick, and that's where you wanted to be. When you came out of the old hole, if you were cocked to the left, you went over to the left. If you were cocked to the right, you drove a little right, because just below the old hole, down a ways—you had plenty of time—was a ledge, and it was sharp… Well, the ledge moved out, I believe it was in 1972. In the fall of 1972, Little Colorado flooded 25,000. Crystal's a fairly new rapid at this point, still. Remember, it was formed in 1966-67. But right after that old hole, this ledge, it was deep and it was steep, and you didn't want to be there, it was really nasty. But

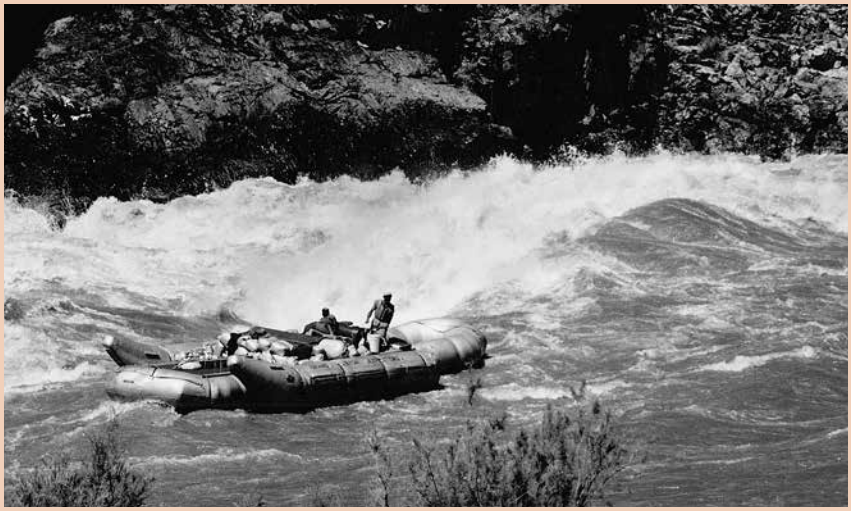
you had enough time. And even if you came out of the old hole straight, the preferred run was then to go over to the left…

Steiger: Man, that hole was big.

Dale: Yeah, it was big, and you warned your people, and you had 'em prepared.

Steiger: You weren't goin' around the far right.

Dale: No. Didn't learn that run. Actually, I think we might have started doin' that in—I believe it was 1971. So there must have been some high water or something at one point that started opening up the right run. But 1972 really cleaned it out, and it was October.



Running Crystal in 1983

But anyway, you know, that 1971 season, I think that was a learning experience for me—especially that first trip with your own boat, and there's nobody there to ask a question to. Dean wasn't next to me now. That first trip is when you really learn… We had a big, fluctuating river. We had really good water, for the most part, but it would fluctuate between 25,000 and 5,000, so you'd run low water. I was experimenting with backing down. I really like backing rapids. I don't mind low water, 'cause I feel comfortable backing down. And you do have such great control.

Anyway, I was learning, but still, I think things are tougher now, just 'cause of the dam, and you get that debris comin' in side canyons. You don't have that flush to clean it out… Bedrock in low water, you gotta hang out there for a long time, you know. Those rocks go all the way to the far left, right out to the main channel. That's just one example. Crystal's changed so much. The stage I like best at Crystal was probably in the late seventies. There was what we called "Route 66." The "Highway" run. You could go right down, just right of the hole. And then also, if you had 20,000 or better, there was a little run—we did it in the dories a lot—come in, three good strokes would get you over to the right, and then there was a series of pour-overs and rocks just off the right shore, and you could just… It was like bein' on a small river. It was kind of a technical little run, and right at the bottom of this little chute was a lateral wave. And all you had to do was cock your boat to the right a little bit, punch through the lateral, and go right of the island, you were done. You wanted to cock your boat for that lateral, it was big enough. I know it rolled Milty once, rolled his boat. In fact, it flipped him, washed everybody out, the boat stayed in there and righted itself in the hole and floated out. Everybody climbed back in and continued their run.

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In 1976, that winter, Bego and Ote and myself and Roberta, and Nels Niemi, rendezvoused here in early January and packed out for a 100-day trip.

Steiger: So that's probably the longest river trip that was ever done?

Dale: In Grand, yeah. Now, Powell was on a long time, too, close to a hundred days, but he launched at Green River, Wyoming. He went through Grand in a month. We had gotten this permit. Roy Johnson, who was the park naturalist for the park at the South Rim, he was instrumental in getting us this permit for a hundred days, because there was very little activity in the winter-time.

Steiger: It wasn't even hard to get a permit, was it? (*Dale:* Oh, no.) You just had to say, "We want to go."

Dale: Yeah. The park had a trip here and there in the winter, and the Museum of Northern Arizona, we saw them a couple of times doing bird studies and stuff. Nobody else at all was on the river. But we launched in early January, and just before we went out on the trip, we went down to the Buckskin Tavern with Ron [Smith]. He was just asking us what kind of a season do we want to run next year, and Bego said, "Give me as many trips as you can." And I told Ron myself, "Well, I've talked to Martin Litton a little bit, and I'd like to do a few motor trips, I'm gonna do a few dory trips also." I did one dory trip for Martin in 1975. It was *Flaming Gorge's* first trip. I took *Flaming Gorge* on it's maiden voyage, brand new dory, for my first trip in a dory. But it was a golden trip, I got it through okay. So anyway, I just told Ron, "I'd like to do a few trips, not a full season." And when we got off that trip, late March or early April, whenever we came off, I got back to Kanab and went in and looked at the schedule for the 1976 season, and I wasn't on the board… So I thought, "God, are they sendin' me to Cataract?" They said, "Nope, you're not goin' there either." So I just

Running the "Highway" in Crystal in 1980

wasn't hired back.

Steiger: Was that just 'cause Ron was like, "Well, if he's gonna work for Martin, to hell with it"?

Dale: Might be. Ron told me he thought I needed a break or somethin'. Didn't consult with me on it. So I said, "Okay." I packed up my gear…

But anyway, after the 100-day trip, none of us planned it, we didn't worry about a shuttle. We decided we'd put on, and as we came off the river, we'd worry about that.

Steiger: 'Cause you weren't even gonna lock yourselves into a specific day necessarily. How was that trip? Did you guys just hike everywhere?

Dale: We hiked everywhere. Anytime we camped, we made a rule early on that it's for a minimum of two nights. We ended up spending like five days at Nankoweap. We had several five-day camps… We had five days at Hance. We spent nine nights at Bass Camp. There's some hikin' in that area. We didn't have any fresh meat. We had a lot of produce, cheeses, stuff that lasts—cabbage and carrots. I need another trip like that to lose a little weight, 'cause we came off lean 'n'mean after that.

At Shinumo, you know, the river's low in the morning. I mean, when we were camped at Bass, every morning… Bego found a little line. You know, we didn't even know about fishing in the river then. We didn't know it was a great trout stream. But Bego had a little line and a hook he found in his tool kit. So I put it on a stick and I remember we were camped at what we always called Shady Grove at 102 Mile. I put a line in the water there, and we went off hiking. We went up on what's called Scorpion Mesa, up on top of the Tonto there. We had to hike downriver a ways to get up. But we were up there. We came back that night, and I picked up the line, and there was a carp on the line. We hadn't had any fresh meat for how long. So we tried cookin' it up. (laughter) We mixed it in with some spaghetti sauce and noodles and ruined the dinner. It was just so oily and stuff.

Anyway, we went on down to Bass, camped there for nine nights. Every morning I'd get up, go down to the upper parking lot at Shinumo, and I could hike all the way to the falls without gettin' my feet wet. Can't do that now. But goin' along the right bank…

Steiger: Which was important… because it was cold?

Dale: It was cold. Actually, in the morning it was cold. We were there in February, and we were getting temperatures in the high eighties during the day. It was beautiful weather. But I could go all the way up to the lower falls there, and I'd catch five trout. I'd just fling 'em on the shore and grab 'em, you know. Just a hook and a stick and a line. And I couldn't play 'em or nothin'. I'd just pull 'em in. And every morning, as soon as I'd get five, I'd go back out, row across the river, row upstream, ferry across to camp. And we ate fresh trout every morning while we were camped there.

Steiger: Probably perked you up pretty good, huh?

Dale: It was great. And I had fun going down there every morning. I could walk all the way up without gettin' my feet wet, cause it was cold in the morning, it was pretty cool.

Steiger: What a great group—God! It must have been a terrific trip.

Dale: It was a great trip, but even after two or three months, there was a little friction building. It was just us, and we had our moments. But for the most part, it was great, just a wonderful experience. We just basically lived in the canyon for the winter, and just did a lot of hiking. Everybody pretty much had good runs. I remember we decided to rendezvous at Bedrock for lunch there the day we were moving to…

Steiger: So you wouldn't necessarily run together?

Dale: No, not all the time, 'cause Roberta and I were out first.

Steiger: Were you guys in one boat, or did you each have your own?

Dale: Roberta rode in my Yampa. Bego had his Yampa. Ote had her Yampa. And Nels had a Green River raft.

Steiger: Oh, man, what a great little fleet.

Dale: So I was the only one really with a passenger. Actually Roberta would ride with other people. I remember we moved from… I guess we were heading to Stone Creek, but we decided to rendezvous for lunch on

the Bedrock. Roberta and I got there and ran it, pulled around the backside and tied up. We're sittin' up on the Bedrock, and here comes Nels floatin' down. He's doin' a million and one things—you know how Nels is, always busy. (*Steiger:* Yeah.) And it's like he's not payin' any attention as he's entering Bedrock, and all of a sudden you see him get serious, but he's down the left… So he goes down the left, and Roberta and I walk over, and he doesn't come out the left side. There's a little cave thing in there, you know—a room over there. We can't see him. We think, "Well, he's gotta be in there." So we go back, get in our boat, go downstream, pull over on the left, and hike back up. And I hike up on this rock and look right down in that room, and there's Nels. He's sittin' there coilin' a rope up, calm as could be, but he's pinned in there. He's floatin' free, it's just an eddy.

Steiger: But there's a huge current.

Dale: A lot of current. And I look down and say, "Hey, Nels!" (laughter) It's sort of like, "Who's up there?!" So anyway, he threw us a rope and we force him back out and he whishes around the left side. We just wait for Bego and Ote, they come down a little later. Changed our lunch plans a little. And then we stayed a couple of nights at Stone Creek, did a lot of hiking there. Went down to Tapeats Creek and stayed there for six days. And the very last full day we were stayin' there… I had beer stashes there… every thirty miles I put in a pretty good-sized beer stash. And that's the only stashes we really had. We carried everything with us, except when we got to Phantom, we hiked out to the South Rim and resupplied. We took empty packs and went to Basha's.

But during the last full day we were at Tapeats Creek, I grabbed the pole and hiked over to the creek and I decided just to fish the lower part. Everybody was staying in camp or hiked over—they'd done most of their hiking already. And I hadn't really gone too far from Tapeats Creek. Anyway, I hiked up a little ways and I decided, well, I think I'm gonna just go above, just take the trail up. I hiked up there, and then I decided to go on up. I was just changin' my plan. As I'd go a little further, I'd say, "I'll go up a little further," and eventually got to Thunder. "I'll just go to Surprise Valley." Went up to Surprise, and decided to go on to Deer Creek and worked my way down to the river at Deer Creek. I decided I would try to go back along the river. So I hiked back to Upper Deer and got that trail that drops right into the beginning of Granite Narrows. Well, I had a beer stash there, once you go in the Narrows, tucked back in there.

Steiger: "Maybe I'll stop and have a beer." (laughs)

Dale: Well, I decided to check my stash, and I went in there, and I pulled the gunny sack out and dumped it all out. And in every stash there was a few cans that went bad, so I emptied those out and smashed 'em, put 'em in my pocket. And I counted the beers in the stash, and there was fifty-two beers. I drank two beers, and put the other fifty cans back in, put it back in the stash place, and then went on along the river. Got back to camp, it was probably about 3:30, or four o'clock and Roberta and Ote were cookin' dinner, and Bego was reading. We always set up a pretty nice kitchen area. We were there for days. And we always played Hearts every night. We played at least a round or two of Hearts. So that night at dinner, Roberta and Ote decided to do the "up and over." We were moving to Deer. So Bego and I decided we'd put Ote's boat between us and we'd row a triple-rig down to Deer Creek, and Nels was just gonna float. Anyway, I told Bego, "You know, as soon as we get into the Narrows, I've got a beer stash to pick up there." He said, "Okay." I said, "I'll bet you there's fifty cans of beer, and they're all good." He goes, "Oh, no way." "I'll bet you…"

Steiger: (laughs) Did those guys know that you'd been around there?

Dale: No. Oh, no.

Steiger: Oh, you just kind of wandered in?

Dale: I wandered into camp, and everybody said, "What'd you do?" "Oh, I just hung out at the mouth of the canyon and fished." I didn't tell 'em I went… But anyway, I made this bet with Bego that there's fifty good cans, and just exactly fifty, and they're all good. And I bet him his share of the stash. He said, "Aw, no way!" And I said, "I'm willing to take a chance."

So anyway, the next day, Roberta and Ote take off, we row down, pull into the beer stash, get the cans out, Bego's flabbergasted. There's fifty good cans, no bad ones! (laughter) And he's just shakin' his head.

I didn't hold him to it. I divided up the beer amongst everybody… That was kind of one of the funny stories.

[After that trip] I went home to my dad and mom's place, and called up Martin Litton. I'd done the one trip for him. I asked Martin for a job. I told him I wasn't hired back for GCE. All he asked me was, "Well, will you commit for a full season?" I said, "You bet." He says, "You're on." …I stayed on with him 'til 1981. That's when Emily was born.

Steiger: So you had the five years with Dories. Did you and Roberta get married like right after that?

Dale: In 1981.

Steiger: And had Emily and then it was like, "Okay, now I gotta get serious about makin' some money."

Dale: Yeah, exactly. And bein' home more. We got married in 1981, up Kanab Canyon here. No, we got married in 1980.

Steiger: I can't believe it! And those girls are grown up now.

Dale: I know. We got married in 1980, and Emily was born in '81.

Steiger: And how was makin' the switch to the Dories?

Dale: Great!…you know what it's like, rowin' a little wooden boat. Nothing quite like it.

Steiger: So you kind of wanted to, before.

Dale: Right. And I figured that I'd only be doing maybe two or three trips with 'em, fillin' in if they needed boatmen or whatever, but Martin was gettin' bigger, too…

Steiger: But you know, Kenton said—not to digress, 'cause we gotta get back to those early Dory days. Kenton told me he thought Ron Smith was the guy that was responsible for—he was the first one that started sayin', "Let's get motors off the river." Do you remember it that way? He said that was all Ron's idea, and he said that he thought it was because Ron wanted to sell everybody rowboats. (laughter)

Dale: It might be true. I think Ron was originally behind the push to get rid of motors.

Steiger: That's pretty interesting.

Dale: You know, another idea Ron had I thought was real good, you know, because everybody had a quota, how many people they could take down the river. And let's say Martin filled his quota pretty quickly—although that wasn't the case for the longer trips—but GCE was fillin' their trips, and a number of companies would fill up, but a lot of companies would come in not filling their quota…

Steiger: For quite a while.

Dale: And I think Ron had the idea that okay, the Park Service had set a quota, why not, to improve competition and the quality of the equipment, quality of the trips, why not, if you wanted to do a river trip, you would call the National Park Service, South Rim, and tell 'em you would like to do the river and who you wanted to do it with. And if Grand Canyon Expeditions…

Steiger: Was it…

Dale: Booked everybody, and took everybody. That's the way it would be, it would be people's choice.

Steiger: Not that each outfitter has "X" amount of quota.

Emily and Ann-Marie Dale on the San Juan, some time ago.

Dale: Right. I think it was Ron that had that idea.

Steiger: That's that common pool idea. There's "X" amount of commercial user days, and nobody is guaranteed a fixed amount of business.

Dale: Right.

Steiger: Whoever those people want to go with…

Dale: They go.

Steiger: It's not a bad idea.

Dale: And it would definitely improve the competitiveness of it. You would have to offer a quality deal at a competitive rate, too. I don't know if he presented that idea to the park or not, but I kinda remember Ron sayin' somethin' about that.

Steiger: Well, was there talk—I mean, within GCE, here if it was Ron that floated this idea of "let's make it a no-motor river," how did everybody feel about that back then?

Dale: Probably about the same as they do now. (laughter) And probably more bewildered. Why is Ron sayin' this? 'Cause at that time we only ran a couple of row trips a year, and in those god-awful triple-rigs. I did four triple-rig trips for the company. I did not like that boat.

Steiger: Yeah, that was pretty exciting, huh? Pretty hard to move.

Dale: It was exciting. It was very important for the front oar to be real patient, and let that back oar get the angle and maintain it.

Steiger: The front could easily outpull the back.

Dale: Easily. And the back oar—I actually enjoyed doin' back oar, 'cause you were busy back there, and I prefer that.

Steiger: I guess the guy in the front could help by even pushin' sometimes.

Dale: Yup, exactly. But what would happen is that front oarer, you know, you're comin' up on Bedrock (laughter) and the front oarsman would say, "I don't want to be near that thing!" So the back oarer always, a lot of times would lose the angle. And then once that happened, you've lost your run. I liked the idea of one boatman, one boat—whether it's a rowing boat, whether it's a motor boat—one boatman, one boat. I didn't like the triple-rig.

Steiger: Well, so, movin' over to Martin, what was happenin' with the Dories along about then? That was kind of the golden time of the dories, wasn't it?

Dale: It was really nice. Martin still had like twenty-day spring and fall trips.

Steiger: No exchanges.

Dale: No, we had exchanges, but only at Phantom. And a lot of times, during the bulk of the summer, we were running sixteen- and eighteen-day trips. If you're

on the eighteen-day trip, you'd leave on a Thursday; and if you're on a sixteen-day trip, you'd leave on a Saturday, and we'd always come off together. And Martin was always there, puttin' us on every launch, and was meetin' us at Grand Wash. Very seldom did you not have Martin at both the put-in and the take-out. It was kinda a neat feeling, and the people got to talk to Martin and meet him.

Steiger: So would Martin find out what went on, on those trips then?

Dale: Yeah. I think actually Martin was amazed how good the quality of the trip was run, you know.

Steiger: Well…[he had some pretty exciting trips, huh?]

Dale: Well, I'm not gonna say this on tape!

Steiger: I mean, I've ridden with him. I love the guy.

Dale: He had a reputation of having some wild runs. But just like they say now of Martin—he's got that angel on his shoulder, and he goes where the river takes him, and most of the time pulls it off. But it's true, I've seen him floatin' down the tongue of major rapids, talking to his guests, not paying any attention to what he's doin'.

Steiger: Tellin' stories!

Dale: I'm going, "Jesus!" I did that trip in 1976, a National Geographic trip that Martin was on. Very interesting. I remember like we were camped at Monument Creek, and the next morning we all loaded up our people, and everybody went over to park above the rapid on the right side and hiked up to that little pinnacle. Have you ever scouted from there?

Steiger: Yeah, it's a great…

Dale: Yeah, a great scout—you're lookin' right down on Granite Falls. And I remember Martin goin', "What's everybody goin' over there for?" "A good view of the rapid." "Oh, you don't need to look at it there!" We were all over there, up above. We watched Martin throw the last bit of stuff in his boat and just pulls out into the current.

Steiger: And runs the rapid!

Dale: Drifts down all alone, nobody runnin' with him. Drifts down the right side of the tongue, just goes down the right side…perfect. And that kind of made me think, "You know, Martin's right. What are we scoutin' this for? It's gonna do what it wants to us. Granite and Lava are similar that way. It's gonna take you and do what it wants to you. You come in where you want, and after that, you're on your own. But I thought it was pretty neat, just watch him bop through there and, had a slick run.

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This one trip I remember, we used to walk our people at House Rock. We were still cookin' with wood, and we all went through empty, pulled in and picked up our people. But I stayed on the beach to gather wood. I got a tarp out and we were gonna camp at North or somewhere, you know. We were gatherin' wood and somebody says, "Look at Richie [Turner]. Richie and his people are swimmin' in the river." I go, "What?!" I look out there, Richie had walked his people.

Steiger: Caught 'em in the eddy and flipped in the tailwaves.

Dale: Pulled out in the tailwaves and flipped.

Steiger: Oh, man!

Dale: I just watched it, there was plenty of help. They got the boat righted. That's a cold swim up House Rock… Anyway, so we went ahead and gathered up wood. And that trip was kinda uneventful until Lava. It was a trip with Wally [Rist]. We camped at National Canyon. The old camp, the upper camp, remember it had a lot of vegetation and little nooks and crannies, and little individual rooms. I liked that upper camp then, more so than I do now… Anyway, we were camped at National that night, and it flooded, big time. The river rose, and we were goin', "Wow, what's this gonna do to Lava?" 'Cause it rose and it stayed up. And the next morning we went down to Lava, got there about ten. We dubbed it "invisible slot stage." Right was way too high; left wasn't high enough to go left, for a dory.

Steiger: Right looked terrible.

Dale: Right looked terrible, and it was too high for the slot. And we looked at it and it looked terrible. So we decided to wait until it came up or went down. And I just went and found some shade. But ten minutes after we had made this decision, Dane Mensik stood up and said, "I can't wait here any longer, I've gotta run it." And Wally was leadin' the trip and Wally said, "Okay, I'll go with you." In those days—I don't know how the Dories are doin' it now, but in those days, we'd have the people walk down along the rapid, look at it, and then make their decision if they wanted to ride or walk. It was their choice. They decided to ride, go back up behind where we scouted from above there, in a group. They'd be assigned to whatever boat.

Steiger: They didn't get to pick which boat they were goin' with.

Dale: Right. Well, anyway, this group of people came back after lookin' at it, and Wally and Dane said they would do the first. We had six boats on that trip. Wally and Dane decided to go first. They each wanted one person in their boat. That's all they wanted. If they flipped—it looked bad, we figured we were gonna flip some boats—they just wanted two people so they could right their boat and get back in, not worry about people all over. So we said, "Take whoever you want." Of course they went up and picked the two best guys, which was good, because we wanted 'em down below, rescuin' our ass when we came through. Anyway, they each got a guy and went back to the boat, and we're sittin' there.

Meanwhile, Moki Mac shows up, Claire Quist. They all drop down the left, no problem. No big deal. I remember Dave Demaree was with 'em in a c-1. They all ran left, had nice runs. People are sayin', "What's so bad about this?" "We can't go there!" But I was in an aluminum boat. I was in the Nechako and I was thinking, "I might go there." (laughter) But anyway, here comes Wally and Dane floatin' down, and we figure, "Okay, whatever these guys…" We're runnin' the slot. We decided we'd run where the slot was. Wally dropped in there, curled him right over. Right gunnel over left.

Steiger: Oh man, boom! He hit it right on the money, too. He was in the right spot.

Dale: As far as we could tell, he was. But just because he rolled over this way, he might have been a hair left. But it was hard to tell. We called it the invisible slot. You couldn't see it.

Steiger: It just looked big and gnarly.

Dale: Kind of was just a solid wave all the way over. Rolled Wally right away. Gees. Takes him to the right, they float through everything.

Dane comes down, pops through the slot okay, but everything's goin' right. You came in behind where the "V" wave was, but it took you right for the big hole.

Steiger: The bottom hole.

Dale: The big hole in front of the rock, and there was a lateral off the rock. Huge. This big hole was in a constant crash. We watched Dane drop into that straight on. His boat disappeared in the froth at the top of that wave—totally gone. And we see him floatin' down, upside down, below. "Oh, shit!"

Steiger: That didn't look good.

Dale: Two boats through, two different types of flips. Tony Williams and Sharkey Cornell decided they were gonna go.

Steiger: After watchin' this?! "Okay, we've gotta go."

Dale: Yeah, they've gotta go. Meanwhile, some of the people that had come back to run, they started filtering back down. They were gonna take pictures.

Steiger: They were up in the group to run, but "no, maybe not." (laughs)

Dale: They went back down along the rapid. Sharkey and Tony both said, "We only want to take one person each." Richie and I were the last two, and we said, "Take whoever you want." They went and picked their people, one each, went back to their boats. Here comes Sharkey first—he was the third boat through. Sharkey makes it through the slot, to the right, makes it over the big wave, droppin' off the big wave, that lateral comin' off the rock is the fastest flip I've ever seen. His boat went just like this, "Schoomp!" He's upside down. Tony comes in, drops into the slot, his boat goes up on its side, but comes back down right-side up. One oar's gone. He's in the back seat. He scrambles back on the seat and is pulling on his one oar to get straight, but drifts right into the big hole sideways. We figure he's over. And it's so amazing, his boat just rode up sideways on top of this froth, got up on top of the wave, his boat turned slowly downstream. We thought, "All right, he's gonna make it!" He stalled out on top of this crashing wave, his boat just sitting there. And then slowly rolled, left gunnel over right. (*Steiger:* Oh, my God!) Just tipped over, real slow.

Steiger: Still on top?

Dale: Still on top of this big wave.

Steiger: Of the bottom hole? Oh, man!

Dale: Just stalled out, and his boat just slowly rolled like that. And we thought "Four for four!" All different types of flips. Different place. So Richie and I are sittin' up there. I look back up, there's three guys and Roberta. Roberta usually went through with me.

Steiger: Was Roberta cookin' or somethin'?

Dale: She was cookin' that trip. She would usually cook two or three trips, and then take a trip off and row. Any trips I led, she rowed a raft. Otherwise, she cooked, but she usually cooked a couple of trips and then took a break and rowed a raft.

Anyway, Richie's going, "I don't want to flip twice in one trip!" Remember, he'd already flipped at House Rock. This was that same trip. I said, "C'mon, Richie, let's just go show 'em how to do it."

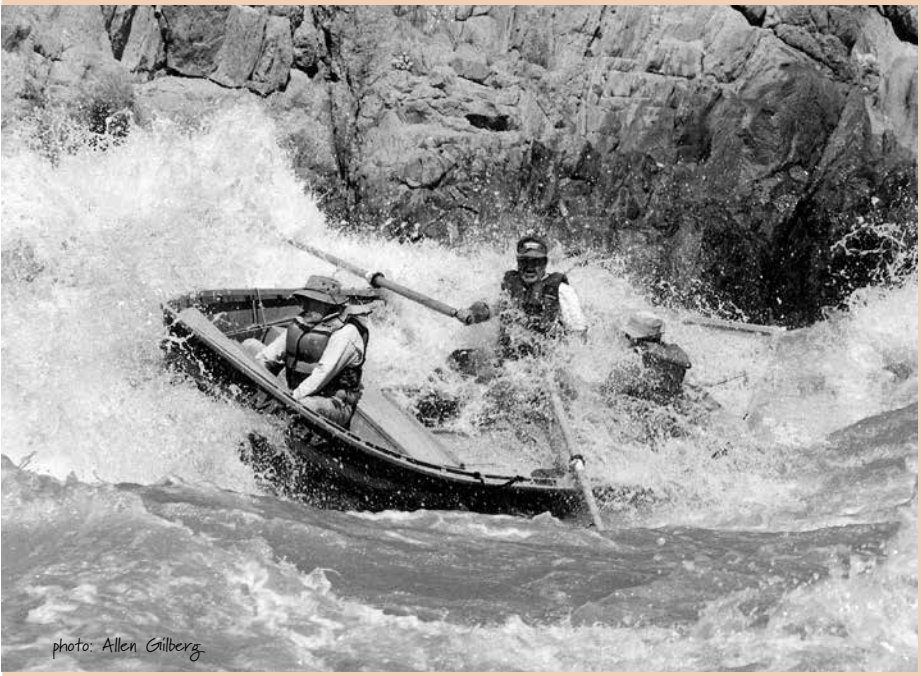

photo: Allen Gilberg

Cruising through Granite Falls

Steiger: So', the water's not changing.

Dale: The water's not doin' nothin'. And we're ready to go, we want to get it over, behind us. So Richie said, "I only want to take one person." I said, "Take whoever you want." And he went back, got his person, headed back to the boat. And I went up there, and there was these two guys and Roberta. I said, "You guys still want to ride through this, after what you've been watchin', huh?" And they said, "Yup." "So okay, you can all go with me." I was the only person with more than one person in my boat. But I put Roberta in the right front. She was a good high-sider. Put her up front and one guy in the back. Richie was already pulled out and leavin' by the time I got there. I pulled out. As I floated down, I saw Richie disappear on his entry. Then I couldn't see him. I saw him in the tailwaves, his boat was right-side up. Both he and his passenger were in the front seat, high-siding. I think what Richie had done was after he made his initial entry, he left the oars and went to high-side.

Steiger: He just deliberately decided, "To hell with it, I'm gonna high-side us through this thing."

Dale: High-side. Yeah, why not? Everybody else was at the oars—didn't do 'em any good. But anyway, Richie was right-side up. All right! Then I dropped in. I rolled up on my side too. The boat came back right-side up. I had washed to the back seat, scrambled back up to my seat. One oar was there, one was gone. I just got straight, and it was the most helpless feeling I've ever had. You're dropping into the big hole and you're just sitting there. You can't push, you can't do anything. Just keep it straight. I'm just sittin' there like a dummy, you know. And Wally had walked back up by this time. Wally said he saw the whole bottom of the Nechako come out of that hole. Came out of that hole, and all of a sudden I was layin' straight back, and that one oar had me pinned, layin' down. And I was just tryin' to get rid of it, and we're gettin' knocked and everything, and spinnin' comin' out of the hole. The lateral rolled me up a ways. I guess that's what pinned me. I was just pushin' on that oar, 'cause there was a lot of pressure on me. I was really amazed. All of a sudden, it flew out, and we're in the tailwaves, spinnin' around. Goin' through the tailwaves, I get my two spares out, throw 'em in, pull into Lower Lava. No boats got in above Lower Lava… Everybody got right-side up before Lower Lava except Tony Williams. He went through Lower Lava upside down. And actually, when I pulled into camp, they were walkin' Tony's boat back up. We were campin' at Lower Lava.

What was really funny was Wally and Dane were the first two boats through. They both got upright and pulled into the beach. And then Dane didn't see Sharkey's run, but he saw Tony's boat come floatin' by Lower Lava upside down. So as Sharkey pulled in, Dane started pullin' out and said, "Hop on, let's go get this boat!" And Sharkey jumped out and gave his boat to his guests to tie up, and Dane was already movin' out. Sharkey grabbed the transom of Dane's boat and was just hangin' there. Dane says, "Can't you get in?" He said, "Did you flip too?" (laughter) So they went out and got Tony's boat and pulled it in. I think he was on the bottom, but he couldn't right it.

Steiger: Just him or somethin'?

Dale: I don't know.

Steiger: But they got it before the next…

Dale: Yeah, we lined it back up to camp. Anyway, that night, four out of six boats over, lots of bumps and bruises… Six oars downriver, unaccounted for, but we got 'em all back. And we partied.

Steiger: I'll bet you did!

Dale: We partied hearty that night.

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Basically my philosophy is, I have a certain way I'm gonna run a boat through the canyon—rowing or motoring, whichever. And you want to, of course, show the canyon to the best of your ability. Not only talking about the different aspects of the canyon, but making certain hikes available to 'em, and let 'em experience off-river… On the river, I'm a conservative boatman, I always have been. There's still some places I feel regardless of what kind of a boat I'm running, you can give 'em a good ride. Some places you don't have a choice. Up until this very last trip [a dory trip with GCE], I've never, ever cheated Hermit. Any water level, any boat, I've always taken it down the gut. This last trip I pulled left for the first time in Hermit, 'cause it was lookin' gnarly to me.

Steiger: It has been.

Dale: Yes, it has been… Even last year, though, I did that, the one fall dory trip. I thought it might be a little risqué, goin' down the gut, but I did, and it let me through. But yeah, Hermit's gettin' a little gnarlier.

But my philosophy is, I try to get nice campsites for the folks, nice lunch spots. You know, sometimes you don't always get what you consider a primo camp or whatever—you do with what you got. But my philosophy is I'm not gonna take the guests by their hands and baby 'em. They have to use a little of their own initiative, and get what they need or can out of a trip. You know? I try to make sure what's available is handy for 'em or whatever, and I'm conservative, but I still don't baby the people. That's probably the way I started out, because the people, the clientele did seem a little more willing to—whatever came their way, whatever the canyon and the river gave 'em, they accepted maybe more readily. These days, if someone's complainin' about the rain or wind or whatever, I say, "Well, that's the way it is. There's nothing I can do about that." I don't go out

of my way to… You know, there's too much goin' on, on a trip, that you can't.

I tend to still, you know, that "old school" aspect, so to speak. "Have a good one!" I see trips now, they blow me away how… What's the word I'm lookin' for? Like you said, you go on a hike, and there's four or five guides, and they got full-on first-aid kits and lots of water. You know, they're like they're preparing for an accident. And that's not bad, though… I kind of agree to that. I mean, I'll pack a first-aid kit on a hike, stuff like that. But overall? Let the people experience it. They don't have to be held by the hand, because they're not gonna get as much out of it.

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Steiger: You guys at GCE have a fairly consistent crew now, huh? (*Dale:* Pretty much.) I guess there's hardly anybody that was around when you started, though, is there? There's like another generation.

Dale: Yes. In this company there's nobody here that was here when I started, except for Fox, Blake Hopkins.

Steiger: From the seventies.

Dale: Nobody else. Of course Mike and Marty took over, I think in January of 1987, when they officially took over.

Steiger: Wow, I didn't realize that it's been that long.

Dale: Yeah. I know in 1986, I was tryin' to save my marriage, and I left the river that year, although I still had a twenty-day rowing trip for science—did a science trip, Fish and Game. Actually, it was a park trip. That's where I really first got to know Kim Crumbo. John Thomas hired me to run a boat. I did that trip that year, did an eighteen-day dory trip, and then did a nine-day GCE trip, and then I gave GCE my two weeks' notice and I got on with the post office here in Kanab. And I did that to try to save my marriage. Once I failed at that, I knew I wanted to go back to the river. It was during that time that Mike and Marty bought Grand Canyon Expeditions, so I went down and asked Mike for a boat back.

Steiger: Was it bein' a boatman… That was the problem in your marriage?

Dale: Well, I have two theories on that, Lew.

Steiger: I mean, there's not very many people that have done it successfully.

Dale: Right, it's hard on a relationship. But I wasn't sure if it was being gone all summer, or being home all winter. (laughter) I really don't know. But I have no regrets about that, I've got two beautiful daughters.

Steiger: Ah. It's a heartbreaker.

Dale: Right.

Steiger: Looking at it from outside.

Dale: You know, I'm sure I was hard to live with, but I didn't want to end it. I wanted it to work. But who knows.

Steiger: How'd you like life in the post office?

Dale: It was tedious, boring. During the summer I'd see all my river friends, and they would fill me in what was goin' on.

Steiger: That was 1986? That was a big year, too, huh?

Dale: It was a big year. It was a hard year, in a lot of ways, on the river.

Steiger: Those pictures that you were showin' me. That was your one Crystal trip?

Dale: That was 1986, that's right.

Steiger: I'm lookin' at this picture. There's a picture that O'C was showin' me before this interview: shows the sequence of about three or four shots of you goin' through in a dory through Crystal through just huge waves all around you, the boat gettin' spun around, one oar bein' blown. I remember you in combat boots. And I remember talkin' to other guys from the Dories, anyway—everybody would put on boots and their best shoes, and some people wore helmets, and no passengers ever rode, and it was one of those deals where you thought you could seriously get hurt doin' it.

Dale: I remember someone sayin', "Why do you wear combat boots?" and I'd say, "It's a war out there!" (laughs)

Steiger: Yeah, 'cause if you were gonna swim to the island or whatever.

Dale: That picture, that sequence, that's where I went after…

Steiger: Oh, you were right down through those?

Dale: Well, down the left, and after I came out of that second hole, my boat spun again, facing downstream, and (schoop!) it shot me right out through the middle of the island, and that bottom big red was making a hole. I mean, I was right on the corner of that. My boat was full of water, I didn't have any control. I pivoted a little bit, and I pivoted as I dropped off the corner, to hit it at an angle I wanted.

Steiger: Did you have the other oar in?

Dale: Yeah. The other oar stayed in. The left oar stayed in the oarlock, so when I got back on the seat, I just grabbed a spare, threw it in the right oarlock. I couldn't budge that boat, though. I was gunnel-to-gunnel. Then we were ridin' with each other, but Derald had gone through with me, and I think we took the raft through first. I hung out in the eddy as rescue boat, and Curtis flipped in that bottom hole. Bronco was with him on that. They clipped more of that hole than I did, I guess.

Then as I pulled up, Curtis and Bronco weren't quite gettin' his dory right-side up.

Steiger: Wow, that's hard to believe.

Dale: Yeah. As Regan pulled into the eddy, he had gone through with somebody else, Regan jumped over on my boat and I pulled out and dropped Regan off. And

Crystal run in 1986 with Derald Stewart. Lost oar...

Going to the stern...

the three of 'em righted the boat. And we got in above Tuna on the left, so there's two boats and four boatmen.

Steiger: Oops! (laughter)

Dale: On the left.

Steiger: You had to stop that boat, yeah.

Dale: But there was a private trip there, Lars Niemi was on a private, and Mike Brown who used to run for us, and Randy Fabreze and they brought our boats and people down.

Steiger: Well, what's been the best part of it for you, if you could ever say? That hundred-day trip sounds like that was a pretty hard thing to beat.

Dale: That was a great time, just livin' in the canyon for all these years. It's kinda like, well, you've taken yourself out of the mainstream of life on the river. But it's important to be in the mainstream of life, you know. I feel that what we do as guides down there, I mean, we change—or we don't change, but we're an instrument for taking people down the canyon and the river that changes their life and outlook on things, and it justifies to me that what I'm doin' is important. If the canyon and river changes people, I'm sure it's for the better. So it kind of justifies what I do, and everybody else. We're doin' a service for our little part. But there is this quality time down there.

Steiger: I think so, too. It's amazing to me how clean it's gotten. I think that's pretty cutting edge. I mean, that we got, what is it now? Shit, it must be 25,000 people a year through there.

Dale: Uh-huh. Are there that many, really? …But, you know, from the early seventies to now, the canyon is—it's amazing how clean, and the consciousness of everybody taking care of the place. Not that in the early seventies it didn't happen, but we didn't have all the tools to take care of it like we do now.

Steiger: Well, just the idea, too, the mind set: carry your shit out.

Dale: Right. Which is so much easier, really. I remember on that hundred-day, we camped at Nankoweap for five days. One full day, we sifted charcoal and cleaned up that camp.

Steiger: Just because.

Dale: Just because. But what really cleaned that camp up was 1983. Eighty-three cleaned the canyon up.

Steiger: I hadn't thought of that.

Dale: Even after sifting charcoal from Nankoweap all day at the main camp, the sand was still more—there was a lot of black sand at that beach. But after 1983 cleaned up the canyon tremendously—I mean, no matter how much sifting we did and stuff, we couldn't compete with what the river did in just a short period of time. And by that time, everybody was already on their programs for keepin' it clean. Since 1983, it's just been sparkling down there.

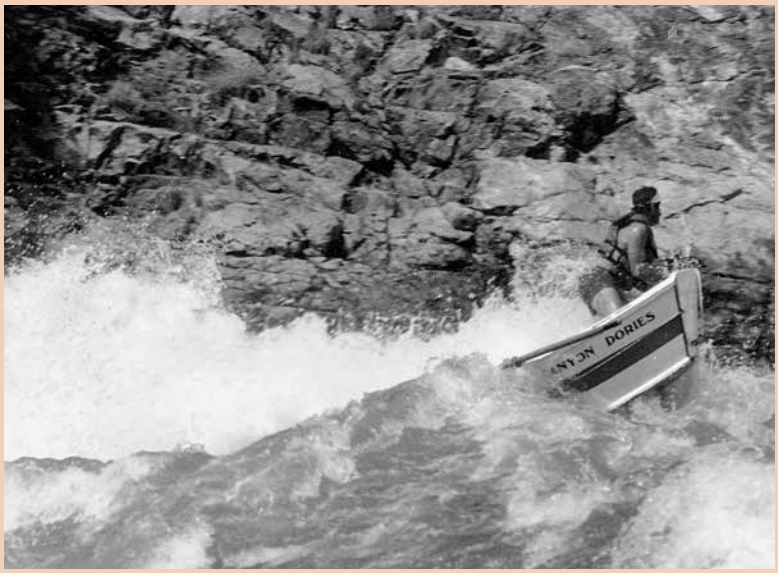
Steiger: I never thought of that, but you're right. I always thought 1983 was terrible, because I always had in my mind's eye, the beaches the way they were before. You know, like Lower Bass, how big that used to be—National and some of them. There's a lot of 'em—I mean, I don't think it ever has come close to what it was just before then, in terms of size.

Dale: Right. …In 1983, of course—this is what I have to laugh at—they were doin' that spike flow. Was that a couple of years ago, the 45,000?

Steiger: Yeah.

Dale: And they were sayin', "We're interested in seein' what it does." Well, we know what the high water does. We saw it in 1983. And we were mildly surprised. We thought when the river drops there won't be anything. And here were all these—I mean, Lower Tapeats, not a rock to be seen.

Steiger: But where is it now?



Coming out of the Old Hole...

Doing a 180 degree spin and heading on downstream.

Dale: Yeah, all those beaches rapidly disappeared. But look at 110 Mile—ripped everything out of 110 Mile. And since the river went back to normal, that sand started comin' back in… I agree with Stuart [Reeder]. Remember a few winters ago when the Little Colorado ran high all year?

Steiger: That's what builds the beaches.

Dale: That's what dumps in all that nice fine sand.

Steiger: Where you walk on the beach and it's muddy.

Dale: But you know, I agree with Stuart, if they want to bring the river up to 30,000 or 35,000, I don't think the bigger flows are that great. But redeposit a little sand a little higher—do it when Little Colorado's crankin', Paria might be crankin'.

Steiger: Yeah, me too.

Dale: But still in 1983, and still during that spike flow, a lot of sand went to Lake Mead. That river was muddy down there.

Steiger: Yeah, and there is a lot of sand down there now. It's funny, science, they always get off at Diamond Creek.

Dale: Yeah. (chuckles) I did a lot of science trips and I have to admit, I enjoyed goin' out at Diamond Creek.

Steiger: Oh, yeah. Sometimes I've watched these guys get up in rooms and talk about how the sand's being moved from the beaches further upstream to beaches further downstream. It's like, yeah, say right about at Lake Mead. (laughs) But I don't know, I think someday the river will just overwhelm 'em up there at that dam.

Dale: Well, I've always said, Lew, Glen Canyon Dam is like a pimple on an elephant's ass. And we're tryin' to do so much to rectify that dam. I don't think we can do that much. Just be patient, the river will be free again some day. Maybe not in our lifetime. I'd like to see that happen. I actually believe that the restoration of Glen Canyon isn't gonna take hundreds and hundreds of years. I think with lots of big storms and some major flash floods down side canyons, it's gonna take a while to clean out. A lot of people don't agree with me, but I'm thinkin' for one year of the dam, one year to clean up. So I'm thinkin' like once that dam goes, at this point, thirty, thirty-five years, a lot of that silt that's built up in there is gonna be washin' away. It might take longer for some of those side canyons like Music Temple and Hidden Passage and Dark Canyon and Cathedral of the Desert and all these things, to come back. I mean, it's gonna take a while, but I'm sayin' not hundreds and hundreds of years.

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On February 13, 2001, luckily, we did a little pick-up interview by phone. We hadn't heard about O'C being the model for the memorial statue and wanted to learn about that.

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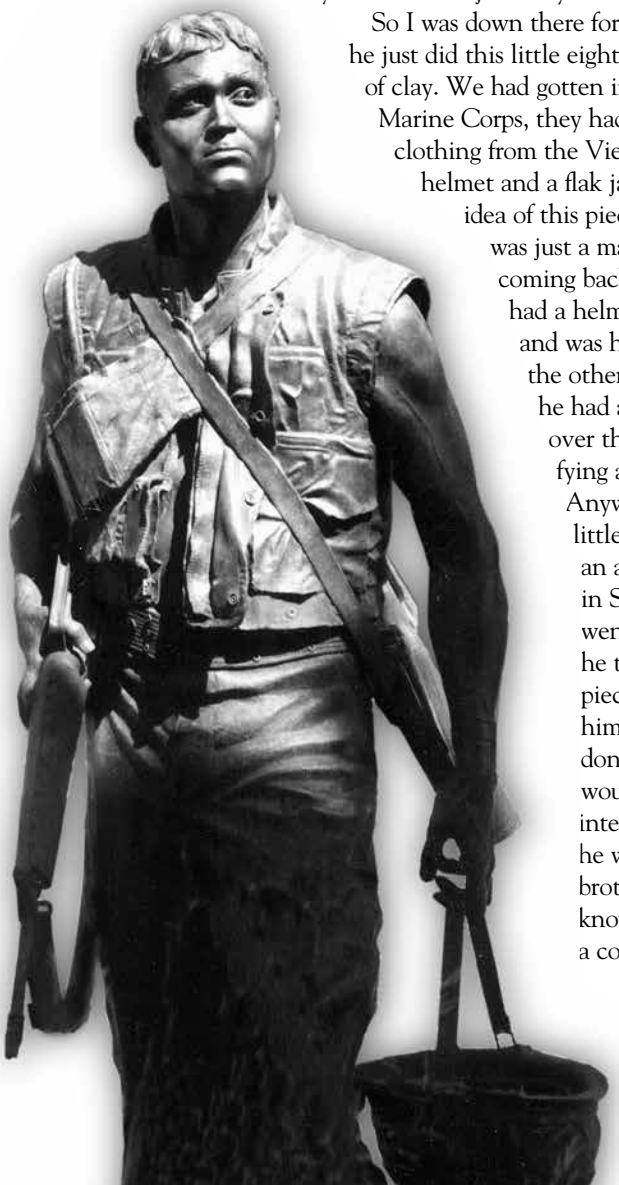
Clyde Ross Morgan. He's an old river runner. He's done some…he used to work for Western, in fact, a while ago, and anyway, he was one of the smart ones and looked elswhere for a livelihood. I know that he did various artworks and then he got into sculpting. He was from St. George. Anyway, just through his river-running experiences he knew Ron Smith and Ron saw some of his works, and wanted some of his sculptures and Clyde says "Well why don't we just do a trade?" 'Cause Clyde hadn't been down the Grand for quite a few years and wanted to get back down there. So they worked out this trade, and Ron put him on a trip and I happened to be running the trip. I didn't know Clyde at the time.

I guess about midway through the trip he and I were talking at night and we both discovered that—he had

been in the Marine Corps in Vietnam, and of course I had too, and so we swapped some stories there, and then that's when I actually found out about all the river-running he had done prior, too, so…anyway Clyde after that trip, he was getting some therapy from, you know, a doctor down in Sedona 'cause he was having a hard time coming to terms with his time in Vietnam. And his doctor said well you're a sculptor, why don't you do a little Vietnam piece, and it could work as part of your therapy. So Clyde agreed to do that and he called me up…now this was the early eighties, I believe, right around eighty, eighty-one. And he called me up and asked me if I would, uh, model for the little piece he was going to do, and I said sure, and sometime that winter I went down to Sedona and hooked up with him. Stayed down there with Clyde for several days, and he starts out, he was going to do a quarter size and I'm six foot, so that would be eighteen inches. And what he did was just a clay piece, and if you've seen his "Sockdolager," you get an idea…he just did a piece for Flagstaff called the "The Gandy Dancer" down by the train station. Well he did that. That's Clyde. He's very meticulous. He had calipers measuring the width of your eyes, and nostrils…from the outside of your eye over to your ear. He's just very meticulous.



So I was down there for a few days, and he just did this little eighteen inch piece of clay. We had gotten in touch with the Marine Corps, they had sent us some clothing from the Vietnam era: a helmet and a flak jacket…and the idea of this piece was that it was just a marine or a soldier coming back from a battle, he had a helmet in one hand and was holding his rifle in the other, you know, and he had a second rifle slung over the back, signifying a fallen comrade. Anyway he did that little piece and he had an art show goin on in Salt Lake and he went up to that and he took this little piece of clay with him, that he had done, just to see if it would generate any interest. And while he was up there his brother told him "You know, Utah's having a competition for the Utah Vietnam Veteran's Memorial, and you oughta look into it." So Clyde called up the Art Center. I think it's located in Provo. And he called them up and said he had a piece that he would like to enter for the Utah Vietnam Veteran's competition. They told him well it'd have to be in clay. He said ok. They said it can't be more than eighteen inches high. He said ok. And they told him that the public was going to be voting on it for one month. They said the competition's already been going on for a week, but after the month, they said that the top seven pieces the public voted on would then be narrowed down to three by the Utah Art Committee, and then of those three they were going to let the Utah Vietnam veterans pick it.

So he brought it, took it down there, entered it, and lo and behold, he went all the way, won the competition. He said there were really incredible sculptures but he thinks his got picked cause it was very simple and made a strong statement, that second rifle over the back of the soldier was real simple, made a statement. Then he wrote a little blurb on it, and he named the piece "But Not Forgotten."

Steiger: Oh, that's good.

Dale: And he wrote a real…excellent little thing that's on it. It's on a bronze plaque just beneath the sculpture in Salt Lake City…so anyway, after he won the competition, now this was the early eighties, they commisioned him to do a monument, for the real deal-you know, and it was a size and a half, so it's a nine-foot statue.

Steiger: Wow. So he couldn't just blow up the eighteen-incher? He had to start all over. (laughs)

Dale: Right. But anyway he made forty editions of the eighteen-inchers.

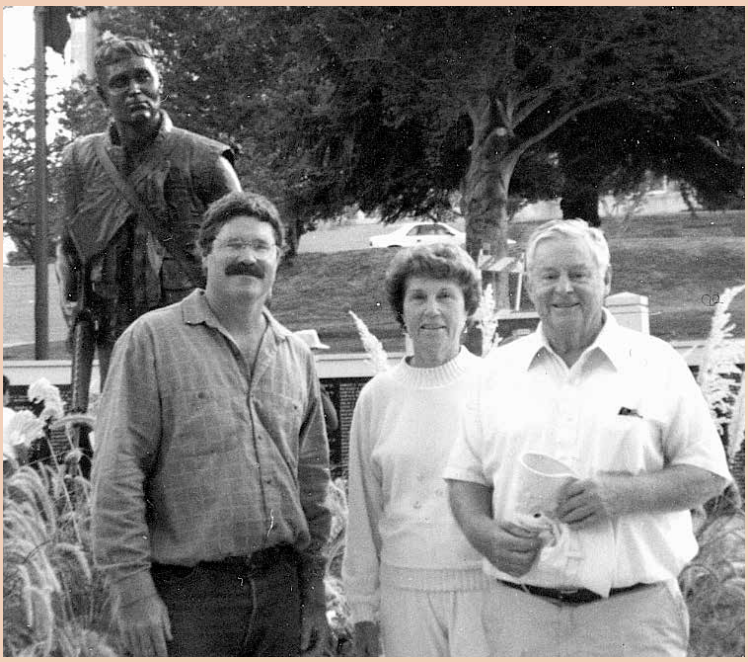
Steiger: Wow. I hope you got one of them.

Dale: Well he told me he'd either pay me, or I could have a small one in bronze. But he told me I was a terrible model. (laughs) So I knew I wasn't going to make much, so I took the bronze. And the reason you didn't see it when you were up at the house was, uh, I gave it to my folks.

Steiger: Yeah. Well that stands to reason.

Dale: I gave it to my folks. They probably had a harder time while I was there than I did. Anyway then I had an aunt who bought one, a small one, and so both the girls, Emily and Ann Marie will receive one eventually, both of them are willed to 'em; so both the girls will get one. But anyway, all the funds to do the Monument were donations and stuff like that. No taxpayer money or anything. And I don't think they got the money to do the whole thing until the late eighties. And then Clyde eventually did the nine-footer and they bronzed it and they did the dedication in late '88 or '89, I could look it up. I went up for it and it was very moving. Very moving experience.

Clyde told me—you know, I didn't—I came home from Vietnam with… I don't think I had too much



At the Memorial dedication with mother Dorothy and father Eben.

baggage. I mean I must have some. I look back on it, I think I told you in the prior interview, at first I'd think I was fine, but you noticed some aggressiveness and stuff that you can look back on and see later. Clyde always told me, he said "You know the reason you adjusted so well is 'cause you were wounded and you paid your dues." He said people that came home without a scratch, like he did, they felt guilty or something. That's what he told me. 'Cause I had totally—I just—I removed myself from Vietnam once I was out. I went to the river. I was discharged in October of sixty-nine, and April of seventy, I was on the river.

Steiger: But when you were there, you got shot at a lot, huh?

Dale: Yeah. The whole time. In the Marine Corps you had a thirteen month overseas tour and mine was all for Vietnam. I was there for five months before I got shot and then I was at a Naval hospital in Guam for three months. When I got discharged from there I had five months left, went right back to Vietnam.

Steiger: You got shot right in the belly, huh?

Dale: In the side. The gut.

Steiger: Was that like in the middle of a big old fight, or was it right out of the blue…?

Dale: Well it turned into a big fight. I was in a group of about—my squad was—usually a squad at full strength was about twelve, thirteen guys, and our squad was down to about six, just from people being injured and all that.

Steiger: Before?

Dale: Yeah. We were down to about six in our squad, and you have about four squads in a platoon; our platoon was out in an area…that night all our other squads had made contact with the North Vietnamese. The North Vietnamese Army were…they were good soldiers. When you were locked into a skirmish with them, you knew it. If it was the Viet Cong, they would usually hit and run. But the North Vietnamese were…they were a good Army; and a whole battalion, or regiment of North Vietnamese had moved into our area. We had four squads out there. In other words, there were about four hundred of them and about forty, you know at the most, or thirty, of us out there. So all our other squads had made contact, we hadn't. And at first light this one morning, February 23rd, the day I was shot, we got a call on our radio to get over to this other squad that was pinned down and surrounded, running out of ammunition. And as we headed toward them I was walking point, and I walked into an ambush. So we were ambushed. And I got hit right off the bat. The first volley of fire from the NVA hit me and I was…you know it wasn't like, you see these John Wayne movies where he gets shot and keeps going, gets shot, keeps going…it wasn't like that. It felt like a horse kicked me. I just went in the air, and I landed in a rice-paddy, right behind a rice-paddy dike. I was walking on a rice-paddy dike and I landed right behind it, so I had some natural cover right there.

Anyway, I was laying there and finally one of the guys made it up to me. I was kind of stunned, but I really didn't know I'd been hit, you know. I told the guy, I said "I think I'm hit." He looked around and then he pulled up my flak-jacket and pulled up my shirt. He said "Yep, you're hit. You're goin home!"

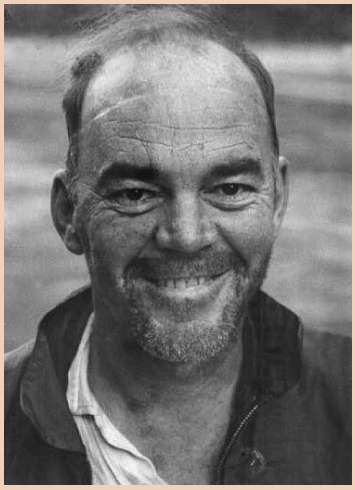
He put a battle-dressing on me, then he ran up a little further and he was firing—we were getting a lot of fire, and he was firing back into this tree-line and I was just laying there on the ground and I saw this—they called em "Chi-Coms," it's a Chinese grenade. They smoke when they throw them. I could see this thing come flipping out from the bushes there behind him, smoking, and I yelled at him.

It exploded and there was a lot of dust.

Then when the dust cleared he was back leaning over me and he showed me his arm. He had gotten hit in his arm. He said "I'm goin' home too!"

Farewells

Brick Mortenson



1950s and '60s Colorado River-runner Vernon Russell "Brick" Mortenson, "ran the last rapid" December 16, 2000, in Anacortes, Washington at the age of 83, after a lengthy battle with cancer. Brick, the middle son of five children born to Morten Mortenson and Ingeborg Mortenson, began life June 1, 1917 on a homestead in the farm country of western North Dakota. Since the midwife failed to arrive on time, his father's delivery foreshadowed the beginning of an adventurous life. During his formative years on the family farm, an off-hand remark about the red hair of that "brick-headed kid" gave Brick the name he eventually used the rest of his life.

Being very athletic, Brick played center and linebacker on the Williston High football team. As he put it, "Those were the days when you played both ways (offense and defense), wore a leather helmet, and if you had to, you played hurt." After high school, Brick life-guarded at the city pool. Once, to entertain the locals, he performed a death-defying stunt as "Martin Yachek Ruspino from Flint, Michigan" who would high-dive off a 30-foot tower, while set on fire, into a 10-foot pool. Fortunately for Brick, his masked hood hid his identity from the community and, more importantly, his parents.

In the late '30s, Brick and a friend drove to Glendale, California in a topless 1926 Model T Ford. There, he attended Curtis-Wright Technical School and secured a job with the Lockheed Aircraft Company, retiring in 1972. During those years he worked on all of the great military and commercial aircraft that came out of Lockheed, Burbank including the P38 Lightning, the F104 Starfighter, the Constellation, the Electra, and the L1011. In 1958, Brick and his family lived in Japan for two years while he worked with Kawasaki Aircraft on the production of the P2V7 antisubmarine aircraft for the Japanese Navy. He worked for a number of years in the secretive "Skunk Works" and helped build unique aircraft such as the SR71, while developing new ways to manufacture aircraft tooling.

While at Lockheed in 1955, friend and co-worker P.T. "Pat" Reilly asked Brick if he would be interested in being a boatman on a trip down the Colorado River. P.T. cautioned him that once they started the trip they would be on their own until they reached Lake Mead. Being an outdoor adventurer and having seen a movie of Reilly's previous trips, Brick quickly accepted. That spring he helped P.T. build his second boat, the *Flavell*, named after the early river runner who, in 1896, ran rapids bow-first facing downstream. Brick's first view of Grand Canyon was from Navajo Bridge, his first view of a rapid from the Badger Overlook. Brick had as his passengers Martin and Esther Litton, also on their first trip. "Marty and his wife had to be the bravest people I know to ride with me since Pat was teaching me as we went," said Brick.

Brick returned with P.T. in 1957, boating from Lees Ferry to Bright Angel on a record flow of over 125,000 cfs, and in 1958 at flows approaching 100,000 cfs from Bright Angel to Lava Falls. After Brick flipped at Mile 137.5 and the subsequent unsuccessful recovery of the *Flavell*, Reilly thought the river too dangerous with only two boats and he let the *Susie-R* and the *Gem* go at Lava while the party hiked out. Georgie White found the *Flavell* and the Reilly party found the *Susie-R*, both on Lake Mead. Because the hulls of both were fiberglass, a new material for boats at that time, and too fragile for Grand Canyon, Reilly could not stop the leaks and scuttled them at Pipe Creek in June 1959.

Brick returned to the Canyon in 1960, hiking to Keyhole Bridge, and again in 1961 with Reilly and Brick's thirteen-year-old son, Dave. His final run of the Colorado River was in 1962, made in a boat he had designed and built, the *Flavell II*. When Brick first ran the river there were only about 200 people who had done it before him. He was also one of about 1,800 people to ever run the wild, muddy Colorado River before Glen Canyon Dam.

The family held a memorial service at the American Legion hall in Eastsound, Washington, December 27. Any contributions to Brick's memory may be sent to the "Brick Mortenson Scholarship Fund," Orcas Island Lions Foundation, PO Box 1212, Eastsound, WA 98245.

In early January Brick's son Dave Mortenson, generously donated Brick's 1950s pre-dam river running films to NAU's Cline Library Special Collections and Archives (SCA), establishing the Brick Mortenson Collection. In a fitting memory to his father, Dave then left for a 30-day river trip in the Canyon. Brick would definitely have approved.

For more information on Brick Mortenson, look up his biography, *Running the Colorado River in the Grand Canyon* at Cline Library Special Collections.

Dave Mortenson & Richard Quartaroli

Photograph courtesy of Dave Mortenson

A Tribute to Dave Klopefer

When talking about boatmen, it is possible to ruin a good story with too much of the truth. Yet stories about my brother hardly needed to be embellished. As one of his close friends said to me, "David was one of those people who just made life throb." How to pay proper tribute to my brother is a task that I will not be able to live up to…

…David was born in Richfield, Utah. He spent most of his youth in Logan, Utah. Our father was a pipeline contractor, so we spent summers in Afton, Wyoming, Telluride, Colorado and in the mountains north of Durango, Colorado. By the time he was 14, David was running heavy equipment for dad. At the age of 16 he was living on his own in Jackson, Wyoming…

…Being David's little brother was a character building experience. Because he was the oldest, he was often burdened with baby sitting duty. This never seemed to get him down though. There was always something cooking with David around. For example, he was an expert at getting his siblings to blow milk bubbles from their noses. His acting skills were unparalleled. With a bottle of ketchup he could make us all believe he was mortally wounded, and he would pretend to call the ambulance to come and get him…

…David started working for Western Rivers and Jack Curry in the late '60s. I heard him tell stories about how two of them would be sent to the Ferry to rig six of those big J-rigs, and then drive back to Fredonia. The grunt work paid off, and he was running boats in no time. Before he left Western, he had one major wreck at Dubendorf. He hit a rock so hard with his motor, that it not only launched that massive 40 horse-power Johnson off of the transom, it broke the safety chain as well. The story goes that the motor cleared the boat by twenty feet during its ascent…

…Mother and I went through Grand Canyon with Dave and Linda on an extremely low water trip in 1970. By this time David was a superb motor boatman. I can still remember the finesse that he used working that jackass lift up and down at every little pool of water between the rocks as we slid across what was usually Crystal Rapid. On that trip we actually backed down Horn Creek Rapid. I don't know if David invented this maneuver, but it seems extremely hazardous considering the danger that you were subjecting your prop to…but on that trip David had only dinged two props…

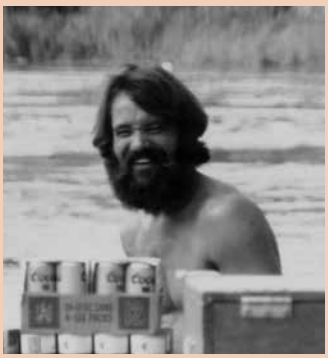
After David and Alan Harris purchased Harris Boat Trips from Don Harris, the whole operation was moved to the warehouse in Kanab. This warehouse was to become Dave and Linda's home…David and Alan were looking to expand the business. They decided to take a trip to the Sea of Cortez to see if they may be able to offer trips in the winter down there. David invited me to come along. This is the trip where I somehow earned the nickname Paco. It was an incredible time with a Grand Canyon motor rig, circumnavigating the entire island of Tiburon north of Kino Bay. It took us a whole week…

…We were all sort of sad about the end of Harris Boat Trips. In those days there were not a lot of regulations, but they were starting to pile up, and it was wearing on David. There is a lot of stress involved in dealing with the government. As river running got more popular the regulations became thicker…Harris Boat Trips was a small company that had to jump through all the same hoops. David and Linda got tired of jumping…

…For the last ten years David had been working overhauls on various power plants throughout the country. He was in demand and lining up work. Things were really going his way. He had even done three months in Panama, and his boss came to realize he was fluent in Spanish. David loved Panama… He loved the kind of work he did. It was technical, and interesting. There were constantly new things to learn. David was the cream rising to the top…

…In 1999 the Klopefer family got invited on a Cataract trip…of course we took over, and had a real good time. I was able to stay up late talking to my brother about things that we never had before… Nothing spectacular, just great to be with the family, to camp out and to have fun. I didn't know that would be our last trip together, but we did it as a family.

Jack "Paco" Klopefer



Early '70s with Fort Lee

Paco and David in Cataract Canyon

Bryce Mackay

"You can't get there from here." That was a line you heard from Ruben Bryce Mackay (a.k.a. U-Joint) more often than not. Bryce hated to be called Ruben. The ladies might be able to call him Ruben, but if you were a man, it was better to let it go, unless you wanted to piss him off. The nickname U-Joint came from shearing off so many on the Diamond Creek road. He was also known as Doom Cloud or the Forecaster of Doom—names that came from his sense of humor. People would always say that Bryce had a black cloud of doom following him around.

One time (it was the closest he came to getting fired) Bryce convinced the crew that the river season had been cancelled because the dam had been shut off. Some actually left for home. Ted Hatch had to fly down to round up the crew for a trip that was leaving.

Bryce and J.P. Running at the GTS—March 2000

Bryce was a one-legged truck driver. He drove with his left foot on the gas and hated using the clutch. He liked driving trucks with older transmissions because they would speed shift easier (shifting without the clutch). He was very adept at not only upshifting but also downshifting; a good thing to learn if your clutch ever goes out! This could be one of the reasons that the Hatch trucks went through quite a few heavy duty clutches. Bryce had lost his right leg when he was backed over by a dump truck in the oil fields of Vernal. Despite the fact that his prosthetic was often uncomfortable he never let it slow him down. In fact he would use it to set up people for his practical jokes. Years ago at the weigh station in Kingman, Bryce unstrapped his leg just before climbing out of the cab of the truck. When getting out of his semi to present his logbook and papers it would be to the disbelief of the attendant that his leg would fall off. Then Bryce would make a good show of rolling around on the gravel gathering up his papers and hopping over to the startled attendant. After that the weigh station attendants in Kingman tended to wave Bryce through.

Bryce would always tell kids that boatmen were tough, but truck drivers were tougher. He would prove it by smacking his shin with a stick or nailing shingle tacks into his leg. The heel on his prosthetic would occasionally break and he would walk to the hardware store for a new bolt to fix it. His foot would sometimes spin around backwards when this happened. One time he was stopped by a concerned woman who told him his leg was broken and that he should immediately go to the hospital. Bryce responded with a straight face saying that it didn't hurt and that he was on his way to the hardware store to fix it.

Bryce started in the river industry almost 40 years ago driving for Jack Curry at Western River Expeditions. In 1970 he stated driving full time for Hatch. Ted Hatch gave Bryce a company truck and unlimited gas as a benefit for working at the company. Ted thought this was a great idea, since Bryce would be tired of driving after going back and forth between Cliff Dwellers and Pearce Ferry, but Bryce loved driving. Bryce would come off a drive, take a shower put on a clean cowboy shirt, hop in his company truck and take off. Ted would then get gas bills from Tuba City to Texas. It is said that once Bryce drove to North Dakota for the weekend. In five years Bryce put 350,000 miles on the company truck, and went through two engines. Although astonished by Bryce's gas bills and where they came from, free gas and a truck was a benefit that was agreed on for years between Bryce and Ted.

Bryce was a friend to all those in the river industry and many on the highway. He had a spring mounted plastic hand stuck to his windshield that would wave to people as he passed them. At Christmas time he would mount a wreath on the grill of his truck. He was regular in many small towns in Arizona and Utah and was always treated with respect. On December 20th, two days after his 72nd birthday, Bryce had his last cup of coffee and piece of pie at the Marble Canyon Lodge. He drove home, lay down on his couch and covered himself with a blanket. Bryce Mackay left us behind with great stories, stranded boatmen, and quite a few broken hearted girlfriends. When Diamond Creek Road gets washed out or if you find yourself stuck on a sand bar on the way in to Pearce Ferry remember Bryce always said, "You can't get there from here."

J.P. Running

Whale Foundation

photo courtesy of Breck Paulson

The whale foundation is out there to help. All calls are confidential. The Whale Foundation help line is (520) 773-0773.

To donate or to find out more about The Whale Foundation, write:

The Whale Foundation
7890 S. Ave. Bonita
Tucson, az 85747
(520) 661-8739
www.thewhaler.org

Announcements

JOB

PRO is looking for a full time office person. River experience and computer skills are needed. We will also have two positions open in food services. All positions are open as of March 1, 2001. Wages commensurate with skills and commitment. Please submit resume to Box 635, Flagstaff, az 86002. Call if you have any questions. (520) 779-1512

BOOK SIGNING

On March 17, authors Brad Dimock of *Sunk without a Sound: the Tragic Colorado River Honeymoon of Glen and Bessie Hyde* and James Aton of *River Flowing from the Sunrise: An Environmental History of the Lower San Juan*, will be at McGaugh's Newstand in Flagstaff, signing books and chatting to folks. Stop by from noon to 3 pm.

SWIFTWATER RESCUE CLASS

This class is open to everyone, and will cover the basics of swiftwater rescue, including pulley systems, mechanical advantages, boat- and water-based rescue. Certification is through Rescue 3. The first day will be afternoon classroom work in Flagstaff, the following two days will be river-based. For further information, call Julie Munger at (209)533-2697.

Swiftwater Rescue Technician 1
Date: April 27–29, 2001
Cost: $150
Instructor: Julie Munger

WFR REFRESHER COURSE

Date: March 7–8
Where: Oars Warehouse
Cost: $125 This course does not include cpr.
You must have current wfr and cpr cards— in other words they will expire sometime after March 6th.

Cpr course
Date: March 6
Where: Oars Warehouse
Cost: $25

To sign up for, or for more information call:
Regan or Ote Dale at 520-774-0526 or e-mail to:
regan@oars.com

Saving All

In November 1937, Buzz Holmstrom became the first to solo the Green and Colorado Rivers. He made the journey in a wooden boat he had designed and built himself. The lumber for the boat was milled from a Port Orford Cedar windfall he found in the woods outside of his hometown of Coquille, Oregon. River historian Otis "Dock" Marston later deemed Holmstrom's boat, which he eventually named the *Julius F.*, superior in terms of design, construction, and suitability for river travel. Marston went so far as to call the *Julius F.* "the greatest whitewater boat of its day."

Throughout the war, the wooden boat lay anchored on the hillside near the house. In warm weather, the sun baked the hull. The weeds around the boat grew tall and unruly reaching for the gunwales. Winter brought wind and rain as the storms rollicked in from the Pacific Ocean. The *Julius F.* endured the seasons, as much a part of the scenery as the creek running by or the dirt road that dead ended in front of Frances Holmstrom's house. She had grown accustomed to the landmark and paid it scant attention until fall, 1943. Then she wrote in her journal, "Painted the top of Buzz's old boat, the *Julius F.*, and hope to do the rest tomorrow, as I don't know any other way of preserving it; save the surface and you save all."

Julius F. in the weeds—1940s

Before the riverboat was turned over, Carl Holmstrom, Buzz's elder brother, often found its footwells filled with buckets of Oregon rain water. "Gunnel to gunnel and then some," he said. He bailed it out. Once he even knocked one or two of "the bottom boards" loose to drain the boat. Made sense at the time, he thought. Mother and brother, each trying to protect the boat that Buzz had built only a few years before.

The war ended. By fall 1945, Buzz and Carl Holmstrom were on their way home to Coquille. The following spring Buzz took a job as "river pilot and lead boat builder" for the United States Coast and Geodetic Survey on the Grande Ronde River in the northeastern corner of the state. On May 18, in the late afternoon, he died of a gunshot wound on the steep banks of the river; the La Grande coroner pronounced it a suicide. The circumstances surrounding his death remain puzzling to this day.

Back in Coquille, the boat remained on the hillside until one Saturday morning in February, 1947. Once a symbol of her son's courage and triumph, it now served as a grim reminder of a loss whose mystery Frances Holmstrom would ponder and grieve over for the rest of her life. That morning she had had enough; it was time to get rid of it.

Frances Holmstrom could not have known that she was about to set the boat adrift on the currents of time and fading memories. Nor could she have known that the *Julius F.*, like any good talisman, would come to represent much more than itself, that it would bear significance beyond its original purposes and intention. Could the boat have survived a mother's wishes, if not fifty years of Oregon weather? Would it be resting on the bottom of a lake or river bed forever out of reach? Or sitting in a garage or barn, out of the weather, awaiting discovery? What happened to the *Julius F.* after it left the Holmstrom's yard that February morning?

Rumors and stories abound.

Introduction to Rumors 101. Once upon a time, a boatman heard from another boatman whose sister went on a river trip in Grand Canyon and had lived in Oregon and had heard another boatman tell the story of Buzz Holmstrom. She knew for a *fact* that the *Julius F.* was in somebody's garage in someplace like Eugene or Medford or Grants Pass. This "story within a story," embellished at each telling, made the rounds. Another boatman, who happened to be a native Oregonian and novice researcher, heard it. He writes letters, makes phone calls, talks to strangers, endures lengthy silences and dial tones, drives hundreds of miles, follows the trial where it leads. In case—just in case.

He does not find the boat; he does, however, locate Holmstrom's brothers and sister. He was not the first to do so.

Dock Marston kept an eye on the boat; he knew its worth. By the late 1940s however, the river historian with an insatiable thirst for Canyon lore, had fallen from

grace with Mrs. Holmstrom. In September 1949, she wrote in response to his questions about Buzz's death. *I do not feel at all moved to accede to your request. I do not see how the information can possibly have any bearing on the subject on which I believe you are writing.* Marston, however, was not easily dissuaded. Others would follow in his wake, step more gingerly. Each would try to save the *Julius F.* from a variety of imagined fates.

Harry Aleson, perhaps more than anyone, pined for the preservation of the *Julius F.* An early river rat and friend of Georgie White, he wrote to Carl Holmstrom on a number of occasions after Buzz's death, pleading that the boat be taken good care of. Finally, he came to Coquille in 1960 to visit with Carl. As it turned out, someone in Coquille did have possession of the boat at that time. It is possible, even likely, that Aleson saw the boat.

In the late 1970s Cort Conley, boatman and author of guidebooks for the Main Salmon and Snake and *Idaho Loners—Hermits, Solitaires, and Individualists,* came looking for stories and the *Julius F.* He had an idea, a crazy idea about starting a museum of river history. He interviewed Anna Holmstrom, slept on her floor, visited the cemetery, but discovered little about the whereabouts of the famous boat.

Among the Holmstroms themselves, the family stories about the boat's disappearance ranged the spectrum of possibilities. Before he died in 1997, Carl insisted that the boat had been burned as his mother requested. Carl, a robust ninety-year-old, was a man whose recall could be as crystal clear as it could be muddled. Still, he remained a credible witness, closest to Buzz in age and shared experience. Rolf, the younger brother, helped Buzz build the boat. He wasn't so sure about Carl's claim. He thought the boat had been "passed on," maybe to Bob Taylor, a neighbor. Perhaps to the postman. Generous to a fault, it had been Buzz's habit to give away his boat (two from the Rogue, one from the Main Salmon) after each of his river trips.

Rolf figured his brother's boat might stand the rigors of time. Port Orford Cedar weathers pretty well, he guessed. As to locating the *Julius F.* after fifty years, his eyes suggested otherwise.

Anna Holmstrom, Buzz's sister, gently shook her head back and forth as if she were trying to loosen a memory from its hiding place. Anything was possible, she supposed. She had a friend who worked for Coos County. He often drove the back roads and isolated areas surrounding Coquille. He promised Anna he would keep a lookout.

One afternoon in the mid 1990s the boatman/researcher from Oregon rode with Anna for hours along those same back roads in the coastal range. She cautioned him that they must be careful, they couldn't go poking around people's property unless they were introduced properly. It could be dangerous. *Dangerous?* Yes, indeed. She knew, for a fact, there were folks with a different sort of crop in the woods around Coquille. Folks who didn't like visitors or strangers.

They peered over fences, looked behind barns, talked to strangers. No luck.

Anna admitted that she hadn't paid much attention to the boat back then. She was busy raising a family. In fact, her daughter June had been born while Buzz was in the heart of Grand Canyon. She thought it might have gone to a cousin or nephew of one of Buzz's many friends. Did she think the boat had been burned? She remembered the story, but couldn't be sure. "It's more likely sitting in someone's yard or pasture and they don't know it's Buzz Holmstrom's boat," she ventured wishfully.

Billy Steward was a quiet fellow who loved to hunt and fish when he wasn't delivering letters. He knew Buzz Holmstrom. Like most of Coquille, Steward was stunned and saddened by the news of his death in May 1946. For ten years, day in and day out, Steward had walked the same postal route. When he delivered mail to the Holmstroms home each afternoon, he had seen the *Julius F.* there on the hillside. Sometime after Buzz's death, he plucked up his courage and asked Frances about the boat. At first, she put him off. She wasn't quite ready to let go. One day, however, she told Steward to take the boat, take it and put it to good use. She also instructed him, so the story goes, that when he was finished with the boat he was not to sell it or pass it on to anyone. He must burn it. One assumes he agreed to the conditions. How could he do otherwise? On February 15, 1947 Mrs. Holmstrom wrote in her diary, "Steward came and took away the red boat this morning. It is such a relief to not have it sitting out there going to ruin."

Steward was a fisherman, not a river runner. He removed the fore and aft compartments and modified the stern to carry an outboard engine. He adjusted the rowing seat and kept the oars and oarlocks for days when the engine wouldn't do. Photos suggest that he did a decent job. During the fall salmon runs, he fished the Coquille; later he worked Isthmus Slough for striped bass. Thirteen years later, in October 1960, he still had the *Julius F.* in his possession.

On October 15, 1960 Carl wrote to Harry Aleson:

Dear Friend Harry,

I talked to Mr. Steward about the boat some time ago, but could not get him to set a price. All he would say was that for sentimental reasons he valued the boat very much. I explained to him what we wanted to do with it and assured him that no one would be making a profit from it but he apparently will not consider selling at this time. If he should change his mind at some later date. I will let you know.

Sincerely Yours, Carl

Five days later, Aleson replied:

Dear Carl:

Thank you kindly for your letter of 15th out of Coquille—forwarded from Richfield and received at Torrey on 24 Oct. I appreciate what you are doing in the effort to preserve Buzz's river boat. There may come a day when Mr. Steward and I are older, that he may be willing to let me buy the boat from him, in return for having cared for it for so long. Ask him if he will raise it up on blocks and build a rain shelter over it—and send me the bill.

After I left you, I found the cemetery and walked around until I found Buzz's and your Mother's graves, and placed a few of the native wildflowers there. Thanks again, Carl.

Sincerely Yours, H.A.

In Marston's voluminous collection of river-related materials is a photo of the *Julius F.*, perhaps the last picture taken of the boat. Clearly, the boat is in someone's yard. What is confounding about the photo, however, is the sign leaning against it: FOR SALE / 256 E.6th / phone—2603. In another Marston file, containing pages of hand-written notes, is a single line entry: *Last in Coquille in 57, Julius F. for sale. Inquire for me.* Carl had claimed in his 1960 letter to Aleson that Steward wanted to keep the boat for "sentimental reasons." Yet, the *Julius F.* was unquestionably for sale in 1957. Frances Holmstrom had died in November, 1956. Was the sale of the boat somehow related? Or was this a coincidence? A misunderstanding of some kind? It is hard to imagine Marston not pursuing the opportunity to purchase the boat. Why then did he not purchase it?

Before the war, every kid in Coquille knew Buzz Holmstrom. Mel Steward, Billy Steward's son, was no exception. At seventy-one, he fondly recalls the building of the boat in the Holmstrom basement, the hoopla and excitement surrounding Buzz's river adventures, and the sad news of his hero's death. The *Julius F.* sat uncovered on a trailer near his house at 6th and Collier Streets for many years. When Mel's father died of a heart attack at age sixty-six in October, 1962, the boat was still there.

That fall thirty-two-year-old Mel Steward returned to Coquille to help move his mother, Ida May. There were repairs on the house to make, furniture and possessions to pack up or give away. Mel remembers his mother saying to him that someone had come by the house, asking about the boat. What should she do, she wondered? At the time Mel didn't think too much about it and told her to pass it on. Someone over in Fairview, a valley to the east of Coquille, might have taken it, he thinks.

That was just a guess though.

Plainly his father had not followed through on Frances Holmstrom's request. The boat had not been burned.

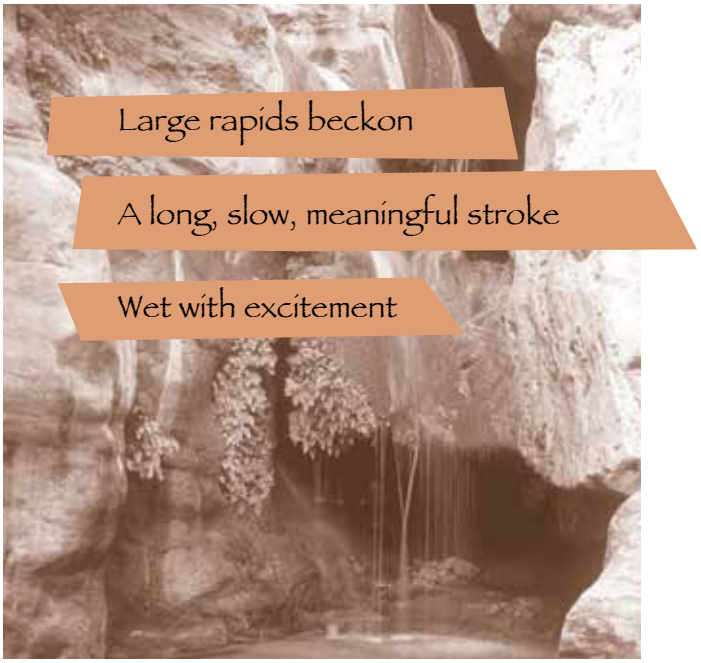
Like a river bending back on itself, the story of the search for Buzz's boat took yet another turn. Anna Holmstrom remembered hearing from someone in Coquille that Mel Steward's aunt, Violet Barrett, had a brother named Bartley Carillo. He could have taken the boat, thought Anna. Mel Steward, on the other hand, never heard that story.

Mel knew two people who might know more about the *Julius F.* As a young man, Wayne Timmons had often fished with Billy Steward. Later, he married Steward's daughter, Shirley, and become Mel's brother-in-law. He remembered the *Julius F.* Not only had he fished from it numerous times, he had mowed the grass around it so often he didn't care to recall. The boat sat on a trailer in the yard for many years, he said, unused. One day it was gone.

In the late 1950s Jay Sauve rented a room from the Stewards. Like Timmons and the elder Steward, he loved the outdoors. His wife, LuAnn, works at the *Coquille Sentinel.* Yes, her husband had fished with Billy Steward; yes, she vaguely remembered the boat. Unfortunately, Jay had died some years ago and she had no idea where the boat might be. When she learned that Mel Steward thought the boat could have gone to someone out in Fairview, she volunteered to ask the elders who still lived there if they remembered a boat like the *Julius F.*

"That was such a long time ago," LuAnn said before hanging up the phone. "You know people and their memories."

Vince Welch

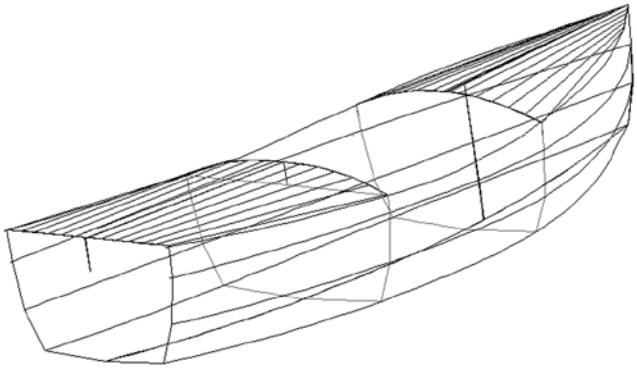


Groping Toward Julius

Buzz Holmstrom named his boat after the benefactor of his second journey down the Green and Colorado Rivers, Julius F. Stone. Stone was among the first to notice Holmstrom's uncommon genius, but far from the last. Nearly seven decades later several far-flung gentlemen are trying to unlock the mysteries of Buzz Holmstrom's amazing boat. Roger Fletcher, a boat historian and modeler from Oregon who has recovered the lines of several vintage Oregon boats, is using the old methods of ruler, paper, handcarved wooden plugs, and scale models to recreate the boat. Conferring with him is the well-known East-coast boat modeler Harold "Dynamite" Payson.

Drift boat models by Roger Fletcher

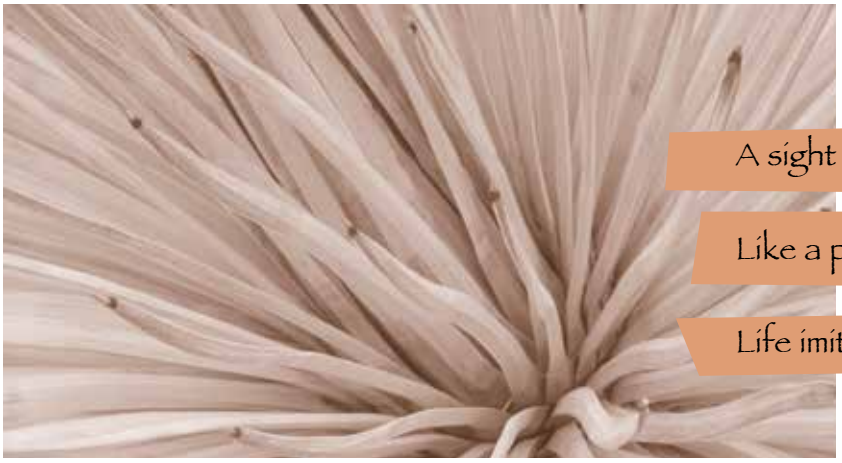
Meanwhile John DeShazo, a retired navy man from Alabama has been working with computerized digital modeling of the boat with software and coaching from Robert Lainé of the Netherlands. I stumbled across Fletcher and DeShazo in cyberspace, brought them together and have been unearthing and supplying photographs from archives around the country. In Oregon Vince Welch continues to sniff around Coos County for word of the original boat. Overlooking the project, giving occasional nods and hints, is Buzz Holmstrom's kid brother Rolf, who will turn seventy-nine this year and who, just sixty-four years ago, helped his brother build the original *Julius F.*



Digital boat lines by John DeShazo

The upshot of all this is that we hope to build a replica. The lumber was cut four years ago—Port Orford Cedar from a tree that grew a stone's throw from where Buzz found his, on the South Fork of the Coquille River in Oregon. Rolf still has many of Buzz's original tools. Boatbuilders from around Oregon are showing great interest, hoping to lend a hand. With luck, possibly as early as this fall, the *Julius F.* may rise again. And Rolf has promised to back up the clinch nails, just the way Buzz taught him.

Brad Dimock



A sight to behold

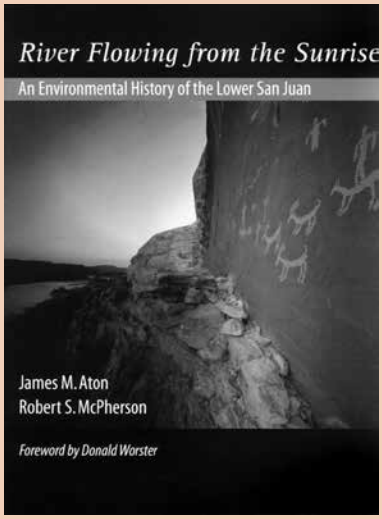
Like a painting but alive

Life imitates art

Book Reviews

The Old San Juan

In the United States, most written histories are overwhelmingly anglocentric. More liberal views of history have appeared in recent years, but even they remain overwhelmingly people-centric in scope. In *River Flowing from the Sunrise: An Environmental History of the Lower San Juan*, James Aton and Robert S. McPherson have attempted something far grander—a true environmental history of the San Juan River. From the emergence of the Colorado Plateau and the origin of the San Juan itself, they trace the evolution and change, not only of the geologic substrate, but of the history and interrelationship of the life forms that have dominated the region, from Wooly Mammoth to hungry cow, from paleolithic hunter to river runner. If the human species dominates the tale it is only because they have been the prime force of change over the last ten millennia.



Concentrating on the Lower San Juan—from Shiprock to the navel of the Powell Reservoir—the story Aton and McPherson tell is not a pretty one. Pleistocene overkill of the large mammals, Anasazi overuse of the resource, overgrazing by white and Navajo, and the Mormon battle with the river that is so hopeless as to be almost hilarious. The San Juan always wins. The authors go on to tell of recent environmental catastrophes: dams, exotic species, extinction, then take a bold leap from the biologic environment to the literary, and trace the San Juan's evolution as an idea in the American mind, much as Stephen Pyne has done for Grand Canyon.

If you are a fan of the San Juan, you must have this book. If you are Grand Canyon-centric, you should have it anyhow. As Aton and McPherson point out throughout the book, everything is connected to everything else, and the old San Juan is part of the family.

Brad Dimock

Sunk Without a Sound

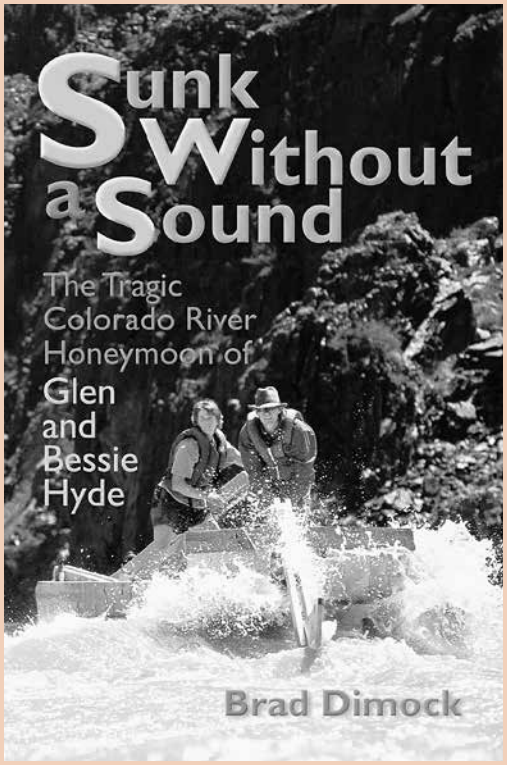
I assume most readers of the BQR are familiar with the outline of the Glen and Bessie Hyde story. The "Lost Honeymooners" is a standard river story on the Grand Canyon now. Most of us have heard it told with varying degrees of success (and accuracy) on river trips, and maybe even read the outline of it provided in the great book by David Lavender, *River Runners of the Grand Canyon*. Now Brad Dimock has provided a book that should prove to be the first and last word on what did, what didn't, and what may have happened on the Colorado River in Grand Canyon in November of 1928.

Sunk Without a Sound is actually many stories. Obviously, the story of Glen and Bessie's trip is here, but there is also an in depth biography of Glen Hyde and Bessie Haley Hyde. There is the amazing story of the epic search for the couple, as well as the story of a trip made in a similar scow by the author and his wife in 1996. The final story concerns the tracking down of the many theories about whether the couple did survive or even could have survived.

This book is filled with information about the early life of Glen Hyde and his wife Bessie Haley Hyde. A smart farm boy from Idaho, Glen was hardworking, industrious, good with his hands, and a quick study in running whitewater. After some whitewater canoe experience in Canada, he built a sweep boat and ran the Salmon River from Salmon down to Lewiston on the Snake River. Bessie Haley was an independent-minded young woman who grew up in Pittsburgh, Pennsylvania and West Virginia. Bessie had attended college to study art, and had what some of Glen's family felt was a "bohemian" attitude. Bessie met Glen on a steamship headed from San Francisco to Los Angeles. Who they were, and hints of who they might have become are revealed by reading excerpts from high school and college yearbooks, old letters, old

poems and journals. Additional details are filled in by sharing interviews with relatives and newspaper articles from the time of the trip.

The trip started in October 1928 at Green River, Utah, with the intention of taking out in Needles, California. The couple built a sweep scow, a sort of a large wooden box, variously described as resembling a horse trough or a mortar box. A sweep boat is not easily propelled, merely guided, using two sweeps, large oars, one in front and one in back. This was the type of boat Glen used on his previous run down the Salmon River. The trip on the Green and Colorado down to Bright Angel Creek was not uneventful, but they ran Cataract and Glen Canyon with only a few bumps and bruises reported, and a swim or two. Significantly they did not bring life jackets. They stopped and talked with folks at Lees Ferry, and had a layover at Bright Angel Creek, where they walked to the rim, and met with expert boatman Emery Kolb. They had a good meal at the El Tovar, but declined to stay there for the night, as the price was a little "steep." They bought supplies and had them packed to the boat. At the beach they met Adolf Sutro, a wealthy tourist who talked his way into coming along from Bright Angel to Hermit Creek. They stopped at Hermit Creek and hiked up to Hermit Camp with him (Hermit Camp was a concession something like Phantom Ranch, situated on the Tonto Platform near Hermit Creek). Leaving Hermit Camp after lunch on the 18th of November, they returned to the river to continue their trip. It is not known if anyone went down to watch them run Hermit. They were never seen again. Much of the story of the trip is told from a journal kept by Bessie during the trip, letters sent out by the pair at Grand Canyon and historical accounts of people who talked to Glen and Bessie during the trip.



Glen Hyde had told his father in Idaho to expect a telegram from Needles, California on December 9th, or at the latest, December 11th. When no telegram arrived on the 11th, Rollin Hyde started packing. He was on a train to Las Vegas, Nevada on the 12th, and was organizing a search. The story of the search is the part of the story that most readers will find new. The amount of country to be searched was extensive, from Needles, California upstream to Hermit Rapid. The first step was to interview anyone living at the few populated spots below the Grand Canyon. The next step was to find someone to launch river trips from any and all access points, including Bright Angel Creek, Diamond Creek, and Pearce Ferry. The Army Air Corps was enlisted to search the river from the air. Starting at Needles and working their way upstream, they found the Hyde's boat floating in an eddy near Mile 237. The boat was unharmed, with food and gear intact. The Hydes were gone, the search continued, with Glen's father, R.C. Hyde, the driving force.

Most of us have heard that there was an older woman on a Grand Canyon commercial trip, who after hearing the Glen and Bessie story told, said, "I know, I was Bessie." This story made it to television, on the show *Unsolved Mysteries*. The author examines this story, and how it grew, as well as looking into several other supposed "Bessies" and "Glens." Some of the coincidences are uncanny.

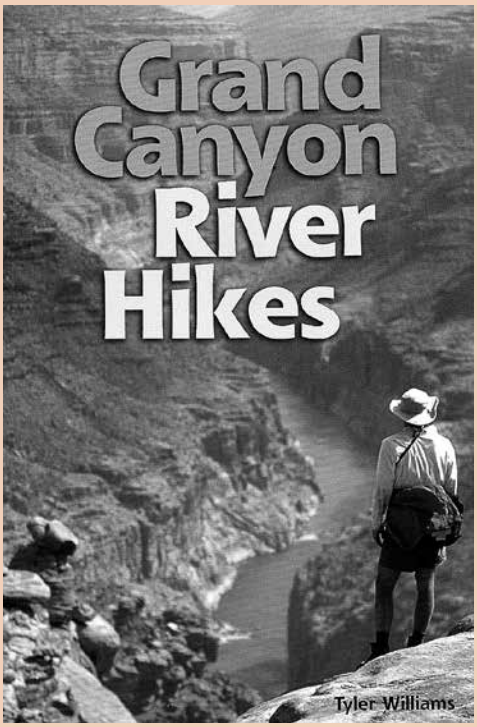
It's hard to understand what running a sweep boat is like for those of us who have never run one, or never rowed a triple-rig (probably Grand Canyon's closest equivalent). The author and his wife built and ran a sweep boat based on Glen Hyde's, from Diamond Creek to Lake Mead, then from Lees Ferry to Diamond Creek. The story of that trip is woven into this book, and it is a story worth reading. I'm not sure that adventure is worth repeating, but reading about it is fun. Building and running this boat clearly increased the authors understanding of, and respect for the Hydes.

If you want to know more about the Glen and Bessie story, this is the book for you. If you just want to read an adventure story, this is still the book for you. If you want to understand how a Grand Canyon river story takes on a life of its own, and how to track it down, this is the only book I know of its kind. This book is a must-have for Grand Canyon boatmen.

John O'Brien

More River Hikes

Two years ago, long-time river guide and writer Tyler Williams and his Funhog Press brought us *Canyoneering Arizona*, a sharp, definitive guidebook for exploring gorges and slots throughout the Grand Canyon state. He's at it again, focusing now on hikes in the Big Ditch to and from the Colorado River in *Grand Canyon River Hikes*.



Williams is a humorous, descriptive and clever writer, which is a pleasant surprise in the vast library of guidebooks, which are often stale and chaste—not much fun to read. Of a trek to Columbine Falls, he writes "just when you've seen all the monkey flowers you can stand, smooth walls of limestone close in, replacing the Elves Chasm scenery with something more similar to Matkatamiba." That's enough to add it to your "to do" list. His demeanor is enthusiastic and contagious, yet cautioning about danger, protection and stupidity. His reminders about accepting responsibility and being prepared are right on.

The excellent photos (black and white, and color) taunt you this time of year when river season is still too many weeks away. The maps are simple and help orient the reader, but should not be relied upon. Williams suggests the use of detailed topo maps for more information. The layout of the guide and hike descriptions follow the breezy, easy-to-read style of his first guide, with tidbits of history, personal observations, diversions and camp options.

Readers should know that the author did not aim to share his comprehensive knowledge of every gnarly, cool and cryptic hike from the river, but rather the standard hikes that most long time guides already know. In his words, "To find the truly spectacular spots you must hike farther, climb higher, and nearly die of thirst once or twice." Though in just skimming the selections, you probably will find a few new side-hike options and reminders of old favorites not often visited or still coveted, especially on the lower end and beyond Diamond Creek. It's a great library addition for those who find themselves on too-quick trips, but occasionally have a few extra days to devote to less-frequented side canyons. It is a must-have for private river trips, though a bit more history and factoids on certain hikes would have been a good addition, especially for those making their first journey without a seasoned guide.

Williams' book, begun several years ago, is similar in subject matter to Tom Martin's *Day Hikes from the River* published last year. But in Williams' opinion, "Tom's book is for hardcore types—mega-hikes for private trips with lots of layovers. My book deals more with standard hikes. Both fill a need." Serious boaters will be pleased to know this Funhog's next book project is tentatively titled "Southwestern Whitewater", focusing on creek and river runs in the Four Corners states.

You can order *Grand Canyon River Hikes* through your local bookstore, or directly from Funhog Press at 520-779-9788

BQR *Staff*

Born Again Irreverence

From the movie "Scrapple"

What were you doing the day *Mountain Gazette* died? I was in the front room of our apartment, Leviathan Ltd., when Coop handed me the letter. It was spring, 1979. At first he was ticked that they weren't going to pay him for his story they printed in what all of a sudden was their final issue. Worse, he had just renewed his subscription. But these issues were minor. This was really bad news. This was the death of a friend.

Mountain Gazette, that funky, irreverent, outrageous voice of the outlaw outdoorsman, the miscreant mountaineer, and the bad-ass beligerant boatman. For those who don't remember it, it was a large format, 10" x 15" newsprint magazine with a black and white glossy cover, and the contents were always something no other magazine would print, either because it ran on too long, wasn't flashy enough or, as was often the case, just might offend someone. Or everyone. Great stories, gritty graphics, really good in-your-face shit. When the magazine went belly-up after an eight-year run, outdoor literature took a serious beating.

Good news. It's back from the grave. Last year, with the blessing of some of the founding fathers of the original *Mountain Gazette*, M. John Fayhee and Curtis Robinson opened the crypt and breathed life back into something that has been gone far too long. Calling upon many of the original contributors and a host of new ones, they promise "stories that will entertain, amuse, edify and infuriate you" and pledge to "back away from nothing." Their first issue, #78, hit the streets in December and holds true to their word. With Katie Lee bicycling naked through Jerome, an interview with the elusive Renny Russell, and stories from old MG writers George Sibley, Dick Dorworth, and Rob Schulthies (Ed Abbey was unable to contribute this issue), it is a full day's read or a good two weeks on the crapper.

Send $25 for twelve issues (a ridiculous bargain) to: Mountain Gazette Publishing, LLC, PO Box 8087, Breckenridge, CO 80424. Or if you frequent cyberspace, visit them at www.mountaingazette.com and get ready to chuckle.

Welcome back.

Brad Dimock

Getting' Close to GTS Time!

There may be a lot of snow outside (at least in Flagstaff), but many of you are thinking about Spring and the Guides Training Seminar. We know you're chompin' at the bit wanting to know what's going on, so here's the schedule:

Friday, March 30th at Old Marble Canyon Lodge, Marble Canyon, AZ:

- 10:00 AM–2:00 PM—Food Handler's Class (call Marlene Gaither at Coconino County Health Department to sign up—226-2711)
- 3:00 PM—GCRG Spring Meeting. Nominations for board members and the new vice president/president elect will occur at the Spring Meeting on the 30th, so please plan on attending!

Saturday, March 31 through Sunday, April 1 at Hatch River Expeditions warehouse in Marble Canyon, AZ.

- 6:30 AM on Saturday—Breakfast and Registration, 7:00 AM Breakfast on Sunday
- 8:00 AM— ?? each day—GTS Land Session
  Cost: $25 (covers food for the weekend)

Tuesday, April 3–Monday April 9th

- GTS River Trip (Upper half—Lees Ferry to Phantom Ranch)
  Cost: $135

Monday, April 9th–Tuesday, April 17th

- GTS River Trip (Lower half—Phantom Ranch to Diamond Creek)
  Cost: $135

Please note that that your outfitter may sponsor you for any of these events (in which case, they pick up the cost). The Land Session is open to all GCRG members, general as well as guide, and to any interested folks of the boating community and the general public. The River Session is open to guides and trainees who have work for the upcoming season in Grand Canyon.

We've got fabulous speakers lined up who will enlighten and entertain you so make sure to mark your calendars! We look forward to seeing you there!

Thank You's

At the end of each fiscal year (June 30) GCRG lists the contributors for that period in the *boatman's quarterly review*. However, it has come to our attention that this kind of listing fails to demonstrate that many GCRG members contribute repeatedly over the years. In other words, these "frequent givers" tend to upgrade their status as time goes on. Our life member list is too long to include here as it exceeds 450 people, but we'd like to take this opportunity to give you a better idea of members who have reached benefactor and patron levels. After all, aren't we a greater sum than our parts?

Patrons (Guide)
Steve Asadorian
Tim Begue
Frank Bender
Bill Crane & David Rockwood
Noel Eberz
David Hinshaw
Liz Jackson
Garth Marston
Drummond Pike
Richard Quartaroli (in memory of Harry "Burlo" Quartaroli)
Ken Wright

Patrons (General)
Anonymous
Barbara & Phil Albright
Mike Archenhold
Margaret Endres
Robert Gooch (in memory of Brenda Gooch)
Jim & Denny Hoelter
Joyce Holfeld
Steve Jellinek
Cass & Lynn Nevada
Gloria Pfeif
Michael Wehrle
McJunkin Corporation
Seagate Software (in memory of Tom Yerkes)

Benefactors (Guide)
Owen & Patty Baynham
Barbara Warner (in memory of Michael Jacobs)

Benefactors (General)
Anonymous (x3)
Guy Blynn
Frank Bonnarens
Chris & Vicki Brems
Titus Case
Ginger Chinn
Jim Cuthbertson
Richard Dawson
Luz Dingledy
Jody Gebhardt
Jane Ginsburg
Edmund Gust
Ed Jodice
Lois Jotter Cutter
Jane & Robert Katz
Jay Kenney
Steve Lange
Carolyn Langenkamp
Jay Larson, MD
Tobin Lippert
Charles Manning
Ed Norton
Robert Norton
Geoff Phillips
Dianne & Elliot Pleva
Rick & Stephanie Rogers
Mark Thurston
Donald Waite (in memory of Tom Yerkes)

Funding organizations are another integral part of GCRG's success. Their assistance with our many programs has been invaluable. A list of funders over the years is as follows:

Brown Foundation
Environmental Experiences
Grand Canyon Conservation Fund
Grand Canyon Monitoring & Research Center
Grand Canyon National Park/Grand Canyon Assoc.
Melody S. Robidoux Foundation
Newman's Own Organics
REI
River Runners Film Project (Don Briggs/Tides Foundation)
Teva
Tides Foundation

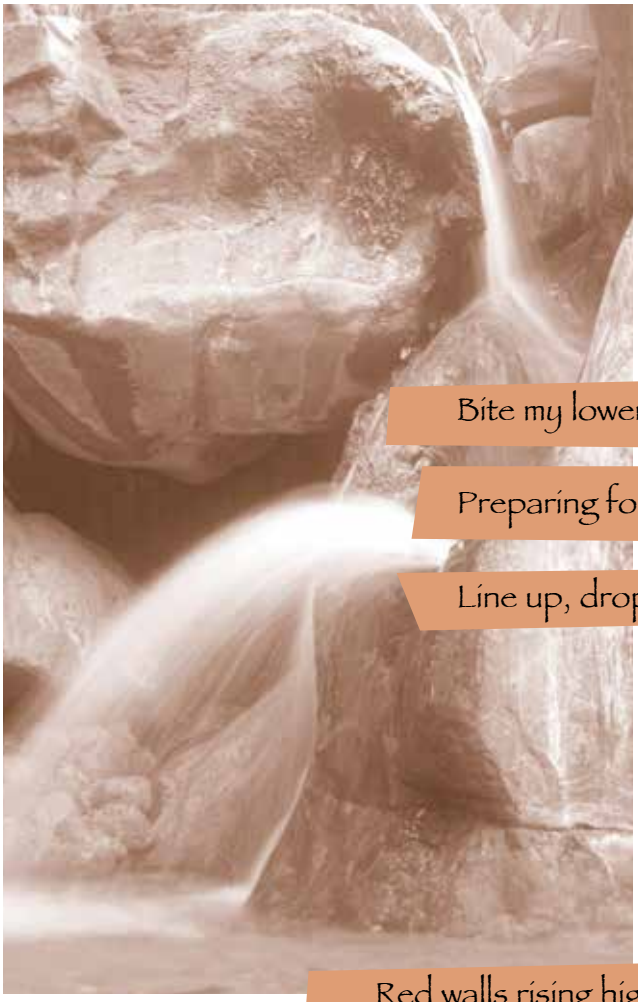
And, while we're in the thanking mode, GCRG has once again had a highly successful year-end fundraising effort. It raised over $8,900 in unrestricted funds for Grand Canyon River Guides' coffers! Many thanks to the contributors below for being so very generous. Please note that a few names reflect unsolicited donations of amounts $100 and over.

Anonymous
Barbara & Phil Albright

Steve Asadorian
Frank Bender
Bill Bishop
John Blaustein
Jim Cuthbertson
Pat Connell
Luz Dingledy
Ginger Drone
Noel Eberz
Pat & Roger Essick
Edmund Gust
David Hinshaw
Denise Hudson
Steve Jellinek
Ed Jodice
Jane & Robert Katz
Gary Ladd
John Linderman
Gwen Moody
Joanne Nissen (in honor of Ken Wright)
Jerry Overfelt
Gloria Pfeif
Margaret Pratley
Tom & Tammy Richardson
Marji Robinson
Virginia Sand
Thomas & Jane Schwenk
Linda Sheppard
Walt Taylor, MD
Ellen Voorhees
Gretchen & Daniel Walsh
Michael Wehrle
Ken Wright (in honor of Joanne Nissen)

Unfortunately, it isn't possible to list absolutely everyone who has contributed to GCRG (and we are very sorry for anyone we may have inadvertently missed in the lists above). However, it goes without saying (but we'll say it anyway) that contributions, no matter how small, have a very large impact on our organization. GCRG heartily appreciates every single bit of support we've received over the years. We also depend heavily on volunteer labor to keep things running smoothly. This includes hundreds of hours of work each and every year. This certainly includes the time that the officers and board of GCRG put into our organization. It also encompasses volunteer efforts to reduce our mountain of filing, fix our cranky computer, tax assistance, website development and many many other things over the years.

All in all, it's a "cumulative thing." So many countless individuals, organizations, funders and volunteers help to make GCRG what we are. We thank you *all* for taking part. Our appreciation knows no bounds…



Bite my lower lip

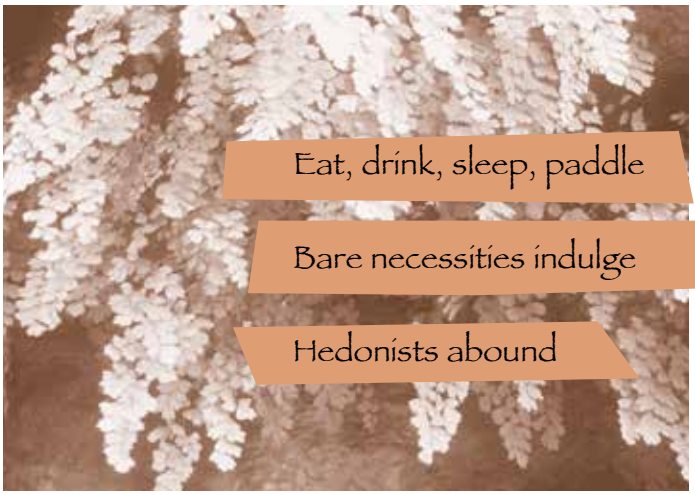
Preparing for the big one

Line up, drop in, whee!

Red walls rising high

Reachin boulders to the sky

Ragged edged splendor



Eat, drink, sleep, paddle

Bare necessities indulge

Hedonists abound

Businesses Offering Support

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

Canyon Supply Boating Gear 779-0624
505 N. Beaver St. Flagstaff

The Summit Boating equipment 774-0724

Chums/Hellowear 800/323-3707
Chums and Hello clothing. Call Lori for catalog

Mountain Sports River related items 779-5156
1800 S. Milton Rd. Flagstaff

Aspen Sports Outdoor gear 779-1935
15 N San Francisco St, Flagstaff

Teva Sport Sandals and Clothing 779-5938

Sunrise Leather, Paul Harris 800/999-2575
Birkenstock sandals. Call for catalog.

River Rat Raft and Bike Bikes and boats 916/966-6777
4053 Pennsylvania Ave. Fair Oaks, CA 95628

Professional River Outfitters Equip. rentals 779-1512
Box 635 Flagstaff, AZ 86002

Canyon R.E.O. River equipment rental 774-3377
Box 3493, Flagstaff, AZ 86003

The Dory Connection Dory rental 773-1008
823 1/2 W. Aspen #4, Flagstaff, AZ 86001

Winter Sun Indian art & herbal medicine 774-2884
107 N. San Francisco Suite #1, Flagstaff

Mountain Angels Trading Co. River jewelry 800/808-9787
Box 4225, Ketchum, ID 83340 www.mountainangels.com

Terri Merz, MFT Counselling 702/892-0511
1850 East Flamingo Road #137 Las Vegas, NV 89119

Dr. Jim Marzolf, DDS Dentist 779-2393
1419 N. Beaver Street, Flagstaff, AZ

Snook's Chiropractic 779-4344
Baderville, Flagstaff

Fran Sarena, NCMT, 773-1072
Swedish, Deep Tissue, & Reiki Master

Five Quail Books Canyon and River books 602/861-0548
8540 N Central Ave, #27, Phoenix

Canyon Books Canyon and River books 779-0105
Box 3207, Flagstaff, AZ 86003

River Gardens Rare Books First editions 801/674-1444
720 S. River Rd. Suite A-114, St. George, UT 84790

ERA Conley Realty 774-4100
123 W. Birch Ave., Suite 106, Flagstaff, AZ 86001

Design and Sales Publishing Company 520/774-2147
geology guides www.edu-source.com/fieldguide.html

River Art & Mud Gallery River folk art 801/674-1444
720 S. River Rd. Suite A-114, St. George, UT 84790

Fretwater Press www.fretwater.com 774-8853

Marble Canyon Lodge Lodging and trading 355-2225
post merchandise, Marble Canyon, AZ

Cliff Dwellers Lodge, AZ Lodging and store 355-2228
merchandise (excluding tobacco, alcohol & gas)

Mary Ellen Arndorfer, CPA Taxes 525-2585
230 Buffalo Trail, Flagstaff, AZ 86001

Trebon & Fine Attorneys at law 779-1713
308 N. Agassiz, Flagstaff

Laughing Bird Adventures Sea kayak tours 503/621-1167
Box 332, Olga. WA 98279.

North Star Adventures 800/258-8434
Alaska & Baja trips Box 1724 Flagstaff 86002

Chimneys Southwest Chimney sweeping 801/644-5705
166 N. Gunsmoke Pass, Kanab, UT 84741

Rescue Specialists Rescue & 1st Aid 509/548-7875
Box 224, Leavenworth, WA 98826 www.rescuespec.com

Wilderness Medical Associates 1888-945-3633
189 Dudley Pond, ME 04219 www.wildmed.com

Rubicon Adventures Mobile CPR & 1st aid 707/887-2452
Box 517, Forestville, CA 95436 rub_cpr@metro.net

Vertical Relief Climbing Center 556-9909
205 S. San Francisco St., Flagstaff

Randy Rohrig 526-5340
Casitas by the beach for rent in Rocky Point.

Dr. Mark Falcon Chiropractor 779-2742
1515 N.Main, Flagstaff

Willow Creek Books Coffee & Outdoor Gear 801/644-8884
263 S. 100 E. St., Kanab, UT

KC Publications Books on National Parks 800/626-9673
Box 94558, NV 89193-4558. www.kcpublications.com

Roberta Motter, CPA 774-8078
316 East Birch Ave., Flagstaff, AZ 86001

Flagstaff Native Plant & Seed 773-9406
400 East Butler, Flagstaff, AZ 86001

High Desert Boatworks Dories & Repairs 970/259-5595
andy @wileywales.com Durango, CO

Hell's Backbone Grill Restaurant & catering 435/335-7464
Hwy 12, Box 1397, Boulder, UT 84716 www.boulder-utah.com

Boulder Mountain Lodge 800/556-3446
Hwy 12, Boulder, UT 84716 www.boulder-utah.com

Marble Canyon Metal Works mcmetalworks@worldnet.att.net
www.marblecanyonmetalworks.com 520/355-2253

Cañonita Dories Dories@frontier.net 970/259-0809
Dory kits, hulls, oars, trailers, repairs, and dory accessories.

Wilderness First Aid Courses 2001

Wilderness Review Course: March 24–26, 2001 (2 1/2 days)—open
Wilderness Review Course: March 27–29, 2001 (2 1/2 days)—filled to capacity
Prerequisite: Must be current WFR, WEMT, WAFA or Review by Wilderness Medical Associates (WMA), WMI or SOLO (If your previous course was not with WMA you'll need to make special arrangements.) Give our office a call at (520) 773-1075.
Cost: $165

Wilderness First Responder: March 15–22, 2001 (8 days)—open
Cost: $425

Review Courses:
Place: Canyon Explorations/Expeditions warehouse, Flagstaff, AZ
Lodging: On your own.
Meals: On your own.
Course: Includes two-year CPR certification.

WFR Course:
Arizona River Runners warehouse, Flagstaff, AZ
On your own or ok to camp in warehouse yard.
On your own.
Includes two-year CPR certification.

Class size is strictly limited. Guides and private boaters welcome. Send your $50 nonrefundable deposit with the application below to Grand Canyon River Guides to hold a space.

Circle One: Review Course Wilderness First Responder
Name _____
Address _____
City _____ State _____ Zip _____ _____
Phone (important!) _____ Outfitter _____
Guiding since _____ ~~# Trips~~ _____ ~~Type of~~ current first aid _____

Care to join us?

IF YOU'RE NOT A MEMBER YET and would like to be, or if your membership has lapsed, get with the program! Your membership dues help fund many of the worthwhile projects we are pursuing. And you get this fine journal to boot. Do it today. **We are a 501(c)(3) tax deductible non-profit organization, so send lots of money!**

General Member
Must love the Grand Canyon
Been on a trip?_____
With whom?_____

Guide Member
Must have worked in the River Industry
Company?_____
Year Began?_____
Number of trips?_____

Name_____
Address_____
City_____ State___ Zip_____
Phone_____

$25 1-year membership
$100 5-year membership
$277 Life membership (A buck a mile)
$500 Benefactor*
$1000 Patron (A *grand*, get it?)*
*benefactors and patrons get a life membership, a silver split twig figurine pendant, and our undying gratitude.
$100 Adopt your very own Beach:_____
$_____donation, for all the stuff you do.

We don't exchange mailing lists with anyone. Period.

$16 Short sleeved T-shirt Size____
$18 Long sleeved T-shirt Size____
$24 Wallace Beery shirt Size____
$10 Baseball Cap
$10 Kent Frost Poster (Dugald Bremner photo)

Total enclosed _____

Anyone Recognize This Santa?

Christmas comes early for Supai Village children

■ Santa Claus, Ronald McDonald part of special event

By Brad Fuqua
Grand Canyon News Editor

SUPAI — Christmas came early last week for 178 Supai Village children.

Santa Claus brought gifts and Ronald McDonald brought food with an escort from the Marines during the fifth year of Operation Supai.

The Marine Corps League in Flagstaff along with Marine Corps Air Station Yuma and the Marine Corps Reserve Helicopter Squad from Edwards Air Force Base near Palmdale, Calif., delighted all in the isolated village of nearly 500 people.

Toys for Tots, which services thousands of northern Arizona children under 12 years of age, has become an annual highlight for the

See **Supai**, Page 10C

Scott Woods/GC Photography for GCN
Santa Claus holds a Supai Village youngster during Wednesday's event.

"This is really the only Santa Claus they know," Barry Allen said about the Havasupai kids. "It's been the same guy every year, Dick McCallum". McCallum may be well known to Grand Canyon-area folks as a former river runner. He led expeditions down the Colorado River for two decades.

Article used with permission. Williams-Grand Canyon News, Brad Fuqua, and photographer Scott Woods.

December 2000

THANKS TO ALL YOU poets, photographers, writers, artists, and to all of you who send us stuff. Don't ever stop. Special thanks to the Brown Foundation and Newman's Own Organics for their generous and much appreciated support of this publication. Printed on recycled paper with soy bean ink by really nice guys.

Box 1934
Flagstaff, az 86002

GRAND CANYON RIVER GUIDES

boatman's quarterly review

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