



the journal of
Grand Canyon River Guides, Inc
volume 13 number 2
spring 2000

- Tad Nichols
- Health Insurance
- COR Changes
- Amberger Drops CRMP
- Lava Falls Rapid
- GCMRC
- Go Humpies!
- GTS 2000
- Food and Medicine
- River Access
- Wesley
- Adopt-A-Beach
- Bessie's Best Friend
- Whale Foundation
- Snakes 2000
- First Things First
- Lost and Found
- Dock's Writings
- Millennium Reunion
- Pediocactus
- Condor #50
- GCY Update
- Let Camelthorn Grow!

boatman's quarterly review

Tad Nichols



In 1950, I had met a woman in California who was making film for television. It was relatively new then, and she had heard about the San Juan River and wanted a cameraman to go with her to help her film the San Juan adventure, and through Glen Canyon, so I went. We were with Frank Wright, Jim Rigg, Bob Rigg—the Rigg brothers, in San Juan boats. Once they got down into Glen Canyon and those canyons of the San Juan River, boy, I saw scenery that I just couldn't believe, it was so beautiful—particularly Glen Canyon. I got to know the Mexican Hat Expeditions crew very well.

They said, "Well, why don't you come with us next spring in the Grand Canyon?"

I said, "Sounds interesting (chuckles) maybe I will."

The next spring came around, they called me up and said, "We're leaving July 1, with four cataract boats. This is our trip of the year, come along." And so I did. That's how I got started in the Grand Canyon.

continued on page 36

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, draw-
ings, 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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River Rage

FROM THE DAYS OF John Wesley Powell to the
present, river controversies have run rampant in
Grand Canyon. If it isn't those of us who want to
stay versus those of us who want to hike out, then it
would be wooden boats versus rubber boats, or Norm
versus Georgie. Sometimes it has been those who
want to swim versus those who want to raft. Oh, of
course, the motors versus oars controversy continues
into private versus commercial, and now keeping up
with the tradition, private boaters versus National Park
Service.

Currently the Park Service is under a great deal of
pressure over their decision to halt any further work
to merge the planning process for the Colorado River
Management Plan and draft Wilderness Manage-
ment Plan. Residents of New Mexico, Maryland and
Colorado have recently filed a lawsuit over the private
rafting permit waiting list. It's tragic to think that
someone had to come to the conclusion that a lawsuit
is the best course of action.

You know, it is sad that in a place that exemplifies
in contrasting light the peaceful harmony of nature, we
are able to bring so much bitterness and hatred towards
one another. Is that human nature? Or humans versus
nature? Sadly, at least we are keeping up the tradition.
How long will it take all of us to realize that this is not
the way to get along? Where is the understanding?

In looking at the Park's decision, ask yourself two
questions:

1. Is the resource being damaged? The answer to this
is, no not at all. It is, after all, a National Park and also
protected by the Grand Canyon Protection Act.

2. Has progress in managing the Park been
stopped? Of course not. The Park Service is doing an
outstanding job of managing the Park and will continue
to do so.

The simple fact is, we all love this Canyon. We all
want to protect this place of beauty. But to do so, each
and every one of us must be big enough and strong
enough to share. Remember that in the heat of summer
the guy with *ice* has no trouble finding a friend. At the
end of a long, hot day there is no reason to compete
if only we can learn to share and take care of one
another. Our real strength is in our diversity and our
ability to help one another. Think not only of what's in
it for you. Understand this one fact: we are all on the
same team and on the same trip. History has proven
that it is better to work together than to die trying to
walk away from the reality of a rapid you may not want
to run.

Bob Grusy

Health Insurance Alternative— High Deductible Major Medical

ADMITTING VULNERABILITY to accident and/or illness is something most of us would rather ignore. You have undoubtedly heard of guides requiring surgery for repetitive stress injury with costs exceeding \$20,000. Since the injury occurred on the job it is covered by workmen's compensation insurance. This insurance is paid by your outfitter-employer.

Health insurance is necessary to protect your financial well being, whether you or your employer pay for it. Employer paid plans are not without their failings and may simply not be available to the employer. If an employer has a high turn-over of employees, if employment is seasonal, or if employees reside over a large geographic area, the availability and/or costs of group health insurance will be affected.

Within the past year, two of my personal acquaintances incurred very large medical expenses that were in no way related to their employment. One individual suffered a broken leg (\$17,000+) and the other was hospitalized for lower abdominal pain for eight days (\$28,000+). Health expenditures such as these can and do force people into bankruptcy. A bankruptcy can stay on your credit report for ten years and impair your ability to obtain financing at reasonable interest rates. My friend's business failed. To obtain a mortgage on a house, he had to meet a larger down payment requirement and pay a higher interest rate due to his bankruptcy.

Health insurance is very expensive if it has very low or no co-payments (payments each time you visit the doctor), or if it provides other benefits such as routine examinations and prescriptions. These benefits include physician and insurance company clerical staff and other overhead that all cost money. These costs are built into the monthly premium.

There is a solution for those individuals who can manage their finances so that they have a reserve or emergency fund. When a medical expenditure is incurred, they are able to pay for it out of these funds. This includes the occasional physical exam, and possibly prescriptions. These individuals can take advantage of the significantly lower premiums offered by plans that have a higher deductible. (The deductible is the amount you have to pay before the insurance benefits begin.)

How much lower are premiums for a high deductible plan? A male age 25 who will have to pay \$100 to \$120 per month for an HMO, can find a \$1,000 deductible health insurance plan in the range of \$40 to \$60 per month. The savings in premium in this case can be \$500 to \$700 per year.

For more information about health insurance try this web site: www.ahcpr.gov/consumer/insuranc.htm#head2.

For rates and detailed information about the various plans available, contact a life and health agent, or companies such as Blue Cross–Blue Shield directly.

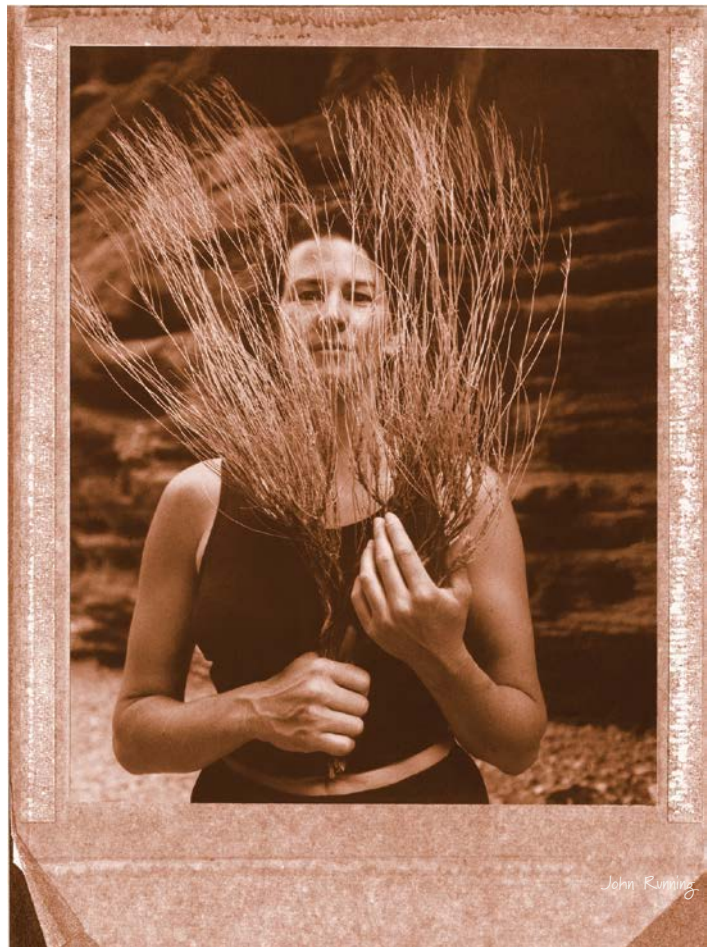
Health insurance quotes are also available on the web. Searching only through www.google.com I quickly located the three listed here:

www.quickquote.com
www.quotesmith.com
www.ehealth.com

www.ehealth.com has a very large selection of high deductible plans.

I was a Life and Health Insurance agent for ten years. If you have any questions or comments, email me at dnorris@wenet.net.

Don Norris



Changes in the COR's

IN MID-DECEMBER, the Park published the draft copy of the Commercial Operating Requirements (COR's) for the year 2000. Over the past few months, both Grand Canyon River Guides (GCRG) the Grand Canyon River Outfitters Association (GCROA) have been going over the changes in the COR's that we feel are important to address. Through phone conversations, meetings, and some very productive discussions, we have been able to work together to reach a better understanding of the cause and effect of the proposed changes.

Grand Canyon River Guides feels there are three areas that need to be looked at more closely. They are:

1. Guide Sponsorship Letter
2. First Aid Requirements
3. Supplement G

Guide Sponsorship Letter

Under the current system, as it stands right now, anyone can walk into the ranger's station at Lees Ferry and take the guides' certification test regardless of actual experience. All that is needed is a good understanding of the COR's. There is no real way presently to prove that a new guide has the needed river experience to become a certified guide and this makes the system weak. In an effort to tighten up this loophole, the Park has suggested that all new guides wishing to take the certification test have a sponsorship letter from an outfitter stating that the guide in question does indeed have the required six trips needed to become a certified river guide.

GCRG agrees that the current system needs to be improved upon. However, we feel that placing the responsibility of guide sponsorship into the hands of the outfitters gives them control over who can and cannot become guides. Our suggestion is that new guides interested in becoming certified would carry the responsibility of trip verification in the form of a letter—a letter that would prove experience. For each trip completed, this letter would be signed and dated by a qualified guide, company, private trip leader, or the Lees Ferry Ranger, thereby providing verification of the required six trips needed to become a certified river guide in Grand Canyon. In order to become a certified trip leader, one would need the signatures and trip dates to verify that the ten commercial trips needed to become a trip leader had been completed. This suggested system would put the responsibility for trip verification in the hands of the guides, while at the same time strengthening the system.

First Aid Requirements

As stated in the Draft COR's for 2000, the nps is interested in raising the minimum first aid requirement to Wilderness First Responder (WFR). Higher emergency

medical certifications above WFR would also qualify (EMT, WEMT, or Emergency Medical Doctor). Over the next three years each guide would need to renew his or her first aid by taking the 72-hour, nine-day WFR course, take an emt class, or become an Emergency Room Doctor. One might think this is all well and good, if we are sincere about attaining the highest standards of professionalism. But before we agree to this, let's take a closer look at it. After all, we are talking about the minimum requirement. The first questions that come to mind are, "Why do we need to change the minimum first aid requirement? Are we lacking in the level of skill or professionalism with the current system? Do we have a track record of mishandling emergency situations on the river? Are we doing a bad job?" The answer, of course to all of these questions, most emphatically, is "No". We are, in fact, doing an excellent job under the current system. So, if the system is not broken, then why try to fix it?

A large number of older, more experienced guides are certified in Red Cross First Responder or the forty-hour Wilderness Advanced First Aid (WAFA) course sponsored by Wilderness Medical Associates. Both of these courses have been specifically designed for on-river emergency situations. The Red Cross First Responder course, taught for the past several years by Patty Ellwanger and Dan Dierker, teaches how to set up a landing zone for a helicopter evacuation, which is one of the most important parts of any emergency situation on the river. Another interesting fact about the Red Cross course is that the fee paid for the course stays in the local community rather than ending up in someone's pocket. Upgrading the first aid requirement would most certainly put a hardship on older guides who have much more experience at handling emergency situations. It would also be a mistake to ignore the time and hard work of the many people who made the effort to improve the existing courses to meet the needs of the working guide. Under the present system there is no way to "bridge" between the Red Cross First Responder and Wilderness First Responder certifications. There is also no mechanism in place to upgrade from a WAFA and WFR. Lastly, there is no "grandfather clause" to give credit for years of experience or other first aid certifications.

We see this as a very costly change, not only in terms of money but also in the time it would take to re-train a large number of guides. It could easily result in the loss of experienced guides who will choose early retirement over re-training. We strongly urge the Park not to change, but rather to maintain the current standards for First Aid certification as defined in the 1999 COR's.

Trust the individual guides to voluntarily upgrade their first aid training. GCRG certainly feels that the proposed changes would not improve the system.

If you would like to become WFR certified, the best course of action would be to contact Wilderness Medical Association for information. Check out www.wildmed.com, call 1-888-945-3633, or talk with your outfitter about sponsoring a WFR course. As for emt or Emergency Room Doctor certifications, contact a college or university in your area for available classes. If your card is about to expire, you will need to renew the certification you currently hold or find a WFR class offered near where you live. The WFR class is a good way to CYA (cover your...).

Supplement G

The draft copy of the proposed year 2000 COR's also includes a new item called "Supplement G". This attachment moves "regulatory items" out of the main body of the COR's (such as restricted or permitted areas, conditions for public use, as well as regulations pertaining to natural, cultural, and archaeological resources). Most importantly, Supplement G also includes applicable Codes of Federal Regulations (CFR). This is a little more difficult to understand. But to do so we must go back a few years to the days of the debate between the Coast Guard and the National Park Service as to who had control over the Colorado River in the Grand Canyon. Many of you may recall, in 1996 the Coast Guard and the National Park Service squared off over river regulation in Grand Canyon, with the matter being resolved in favor of the nps continuing to assume their regulatory responsibility for Grand Canyon National Park. It was a tough fight, but in the end the Park Service won by proving that that they could do a better job of managing the river

than the Coast Guard. However, by law, the Park is now, and always has been, required to enforce the Codes of Federal Regulations. The fact remains that Coast Guard and cfr regulations are "codified". In other words, even though not specifically stated in past COR versions, these regulations are mandated by federal law and the Park must abide by them. There are a lot of CFR's. This book is thick. Rather than incorporating them into the COR's, the Park has gone through the COR's and pulled



out the reg's that are in fact duplicated in the CFR's. They have put these CFR's into Supplement G as an F.Y.I. In doing so, the Park has been able to shorten the COR's by about five pages. Good news, bad news. Bad news is, Supplement G adds about six pages to the COR's. GCRG feels that some of the cfr or Coast Guard regulations (as summarized by the nps in Supplement G) are vague and open to broad interpretation. We would like to see the regulations rewritten to be more concise and easier to understand—an interpretation of law written specifically for the Colorado River in Grand Canyon.

So there you have it in a nutshell. Hopefully, this has

cleared up a few things for you. It is important to point out that the Park is showing a great deal of interest in working towards improving the Commercial Operating Requirements. It is also important to mention that COR's need not be rewritten every year. We certainly appreciate the fact that the Park has presented the COR's in draft form and offered us the opportunity to comment. For now, it looks as though we will be operating under the 1999 COR's until otherwise notified.

Bob Grusy

Arnberger Drops CRMP

WE ASKED SOME REPRESENTATIVES from the Grand Canyon National Park to write up something for the BQR regarding Superintendent Rob Arnberger's latest decision to drop the Colorado River Management Plan (CRMP) and draft Wilderness Management Plan. However, it seems as if all park employees have been silenced from discussing the issue because of litigation. So, what follows is the official press release on the decision.

February 23, 2000

Grand Canyon National Park Moves in Different Direction With Planning Efforts for River and Backcountry

Grand Canyon National Park Superintendent Robert Arnberger announced a decision to halt any further work to merge the planning process for the Colorado River Management Plan and draft Wilderness Management Plan into a single planning effort through an Environmental Impact Statement (EIS).

Both planning efforts are identified in the Park's 1995 General Management Plan (GMP). Primarily focusing on the developed areas of the Park, the GMP included vision and management objectives for undeveloped areas as well. The plan called for the revision of the Park's 1988 Backcountry Management Plan and suggested the Park's 1989 Colorado River Management Plan be revised when needed to conform to GMP management objectives.

A decision was reached by the Park to undertake the development of a revised Colorado River Management Plan and public scoping of issues began in 1997. A draft Wilderness Management Plan and Environmental Assessment (EA)(intended as a revision of the 1998 Backcountry Management Plan) was prepared and released to the public in 1998. Although the purpose of the draft Wilderness Management Plan is to provide park management guidance on how lands contained in the land-based "proposed wilderness" areas will be managed, the plan quickly became confused with the Wilderness Recommendation—which awaits congressional action.

Throughout the planning process issues were identified by the public that were complicated by the lack of wilderness designation, including the use of motors on the river; user day allocation between commercial and noncommercial users; the closures of roads in proposed wilderness areas; and appropriate administrative use.

Over the last several years the National Park Service (nps) has dedicated substantial financial and human resources to address these issues through the public planning process required by the National Environmental

Policy Act (nepa). The most recent effort examined the possibility of combining the two planning efforts, through an EIS. However, polarization among the backcountry and river user groups and interests has intensified to the point of reducing the Park's strength to bring together divergent perspectives toward collaborating and reaching acceptable resolution.

Due to the inability to resolve many of these issues prior to the resolution of the Park's wilderness recommendation and to the lack of available fiscal and human resources to complete a comprehensive planning effort, the nps will halt any further combined planning effort on the Colorado River Management Plan. Further effort to merge the two planning efforts into an EIS will be deferred until such a time as Congress formally acts upon the wilderness recommendation and/or until the nps has both the financial and human resources to complete planning and nepa compliance. The current Backcountry Management Plan approved in 1988 and Colorado River Management Plan approved in 1989 will continue to be the guiding documents for management. National Park Service Policy requires areas recommended for wilderness or potential wilderness designation will continue to be managed as wilderness. No management actions will be allowed that would endanger the wilderness designation.

The decision to halt the process of combining the two plans is clearly within the discretion of the Superintendent. "It is not without some level of trepidation that I make this decision. It was not made in a vacuum, numerous staff briefings and discussions with a number of parties were held to seek input and guidance," stated Robert Arnberger, Grand Canyon National Park Superintendent. "The decision to halt this process is not a decision to halt progress on the resolution of key issues. There have been actions and initiatives taken to date, either concurrent with planning or separate from that activity that can, and will bring us benefits. We will continue to seek improvements, within the confines of National Park Service Policy and other guiding documents, to those issues identified by the public."

Some of the improvements that the nps has been working on include:

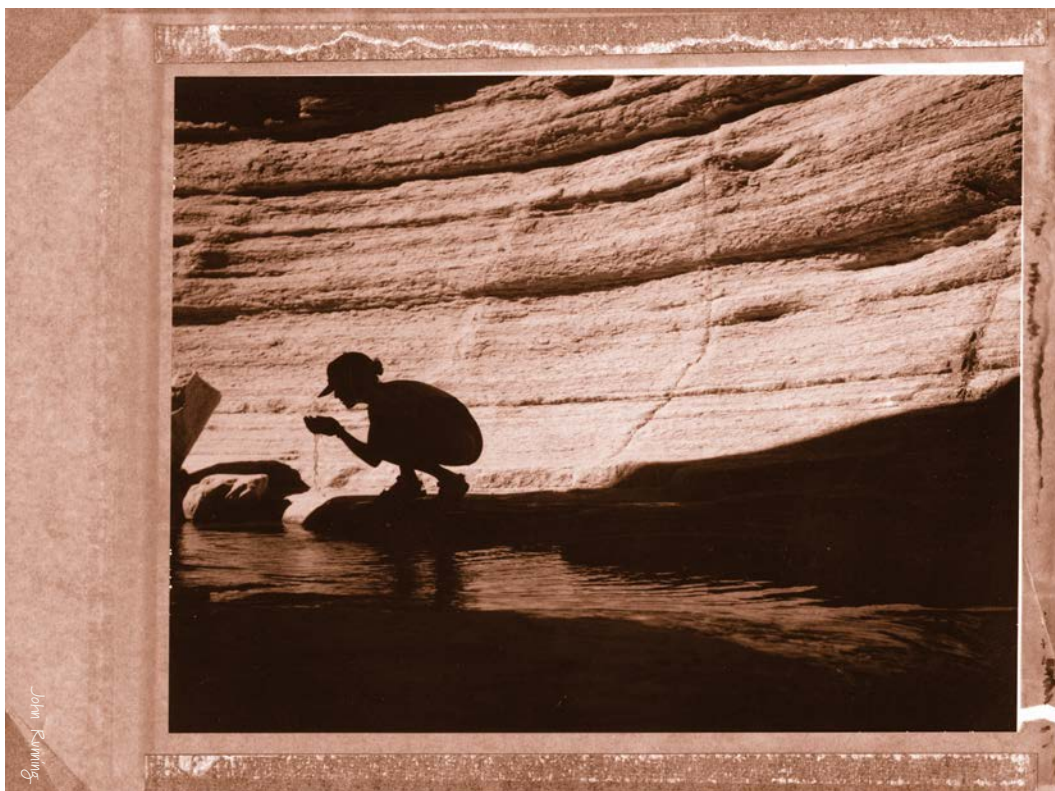
- The development of a computer program, currently being tested, to provide the nps with an increased predictive ability to simulate river traffic based on modified launch schedules—the service is exploring the application of this tool in scheduling river launches on the Colorado River that may help the agency better manage use for resource protection and visitor experience.

- Although the nps will defer major changes in the allocation of river use, until revision of the Colorado River Management Plan can be carried out; they will examine the possibility of reallocation of user days at the contract renewal stage in three years.
- Over the last several years changes have been made to the permitting system for private river launches and backcountry use that are aimed at streamlining the system and fees charged—the nps will continue to seek improvement through analysis and public input.
- Further park guidance on administrative use in proposed and potential wilderness areas will be developed and provided to park staff —guidance will be based on the “minimum requirement” concept to all administrative activities that affect the wilderness resource and character. The minimum requirement is a process for determination of the appropriateness of all actions affecting wilderness (or in the case of Grand Canyon, proposed and potential wilderness). It incorporates the concept of minimum tool, which refers to an activity that makes use of the least intrusive equipment, regulation, or practice that will achieve the wilderness management objective.
- The park along with the Department of Interior will continue to work along with commercial river operators in the research and employment of quiet motor use.
- Recently, an agreement was signed with the Hualapai Tribe which will lead to a Memorandum of Understanding, to resolve issues along our mutual boundary,

- a significant step that will provide guidance for management of the river along disputed boundaries.
- The nps will continue analysis of issues brought forth by the public relative to land-based “proposed wilderness” to determine the feasibility of completing the draft Wilderness Management Plan and EA.

With this decision, park staff will direct their attentions to many of the other planning efforts currently underway that continue to command a great deal of park resources. Some of those include: the accomplishment of the Noise Management Plan, pursuant to overflights legislation and faa regulation; completion of a Memorandum of Agreement with the Hualapai Nation for management of the river corridor along disputed boundaries; implementation of the GMP involving the completion of Canyon View Information Plaza, the Park’s transportation/orientation center; implementation of the mass-transportation system, Greenway Trail system and Heritage Education Campus.

Everyone that has been involved in the public process will be notified of this decision and informed of further opportunities for input. Additional information can be obtained by writing to Linda Jalbert, Recreation Specialist, Grand Canyon National Park, PO Box 129, Grand Canyon, AZ 86023 or on the Grand Canyon Future Page at www.nps.gov/grca/future.htm Comments can be sent to Ms. Jalbert at the above address or by email to: grca_public_comment@nps.gov.



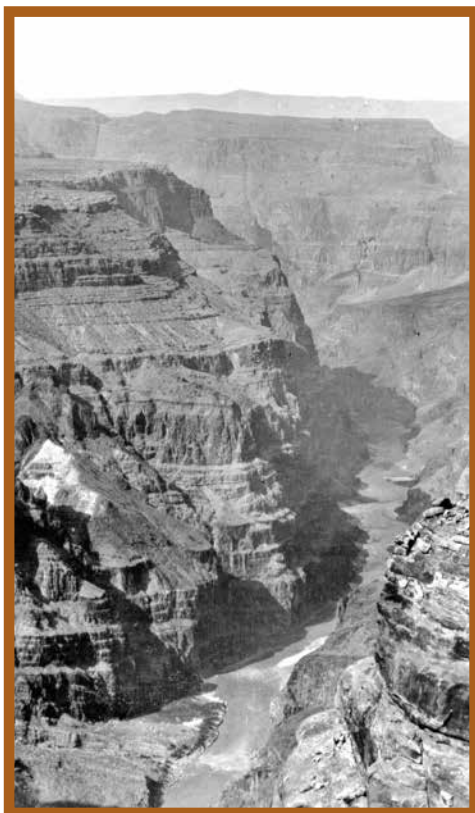
The Changing Rapids of Grand Canyon: Lava Falls Rapid

FOR PASSENGERS AND BOATERS ALIKE, Lava Falls Rapid is the highlight of most river trips through Grand Canyon. Who doesn't remember at least one thrashing in the V-Waves, or looking up at the Big Wave as it crashes over your boat? Even worse, some people have the memory of plunging into the Ledge Hole with its attendant consequences. In recent years, the rapid has changed, adding some new hazards as well as making the run easier at some water levels. After watching Brian Dierker recirculate in the Corner Pocket last March after a flip in the V-Waves, we were reminded of just how much Lava Falls has changed since John Wesley Powell first encountered the rapid in 1869.

Debate has raged since Powell's first trip about which rapids were the most severe in Grand Canyon. Powell made a big deal about the severity of Separation Rapid, using fear of the rapid as the reason that the Howland brothers and Dunn hiked out of Grand Canyon in Separation Canyon. Powell possibly exaggerated the size of Separation Rapid to create a diversion for the real reason the Howlands and Dunn left his trip: Powell's overbearing personality. Robert Brewster Stanton, who led the second expedition through Grand Canyon, thought Lava Cliff was the worst rapid he saw. In a 1976 paper, Otis "Dock" Marston, noted river historian, compared Lava Falls, Lava Cliff, and Separation rapids and decided

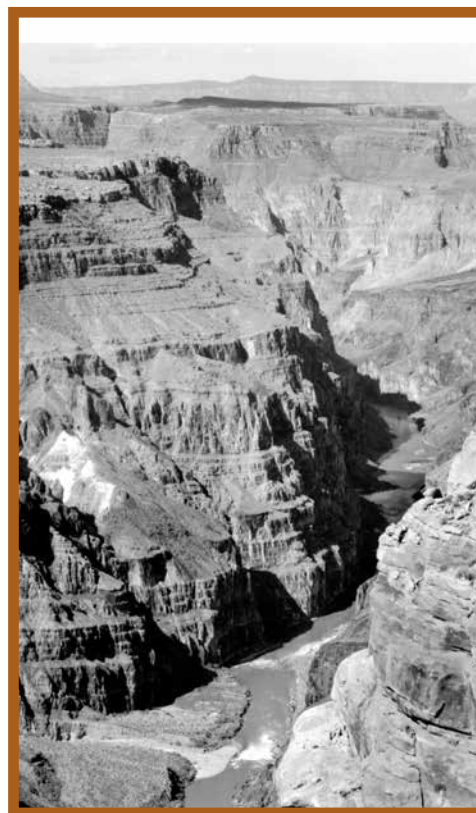
the latter wasn't in the same league with the former two. We'll never really know whether Lava Falls or Lava Cliff was the most severe rapid, in part because Lava Falls has changed so much and Lava Cliff has been under Lake Mead since the late 1930s.

There is no doubt that Lava Falls has historically been a large rapid. However, most of its hazards are completely different from what the early expeditions saw and photographed. We've obtained 234 historical views of Lava Falls to date, and we've matched 121 of these to assess how the rapid has changed since April 1871, when it was first photographed by members of the second Powell Expedition. We used this evidence—plus river-runner movies, some scientific dating methods, and a lot of surveying—to reconstruct not only



Lava Falls Rapid as viewed by the Powell Expedition was completely different from the rapid now familiar to thousands of boatmen. The Ledge Hole and V-Waves are not present. A prominent tongue of water entered the left side of the rapid, and its tail waves at the bottom flowed directly downstream and away from the Black Rock. This rapid has a 3% constriction.

April 16, 1872. J.K. Hillers. Photo courtesy of the National Archives



The debris flow of March 6, 1995, constricted the Colorado River by 62%, but the river quickly widened the constriction to about 50%. The constriction increased the drop through Lava Falls Rapid, accentuating its hydraulics, particularly in the Ledge Hole and V-Waves, but some formerly prominent waves, such as the Big Wave, disappeared. The 1996 flood widened the rapid, and the Big Wave reappeared.

May 16, 1995 R.M. Turner. Desert Laboratory Collection, Stake 967.

historical changes to Lava Falls, but also when prehistoric debris flows occurred and how big they were.

Why is the rapid where it is? Some observers have written that Lava Falls is controlled by underwater basalt dikes or the remaining base of lava dams. Both Powell and Stanton thought dikes to be the cause for the rapid. Interesting theory, given the rapid's position under the frozen cascades of basalt flows that inspired the name, but there is no evidence for underwater dikes in the rapid. Instead, if you look at the debris fan on river left, which towers about 75 feet over the rapid, you can see the smoking gun evidence of large debris flows from Prospect Canyon. Why is the rapid so big? The various waves and holes in the rapid are created by large boulders, most of which have only been in the rapid for fifty–sixty years. Many photographs taken at low water show these boulders above water level. A quick hike up Prospect Canyon will convince anyone that debris flows occur frequently in this canyon and transport extremely large boulders when they do.

After working fourteen years on debris flows in Grand Canyon, we've concluded that both the largest debris flow in the last 11,000 years (the Holocene) as well as the largest historical debris flow occurred in Prospect Canyon, and these were two different events. The largest Holocene debris flow occurred around 3,000 years ago and formed the large surface on the upstream side of the wash issuing from Prospect Canyon (see table

below). This debris flow raised the bed of the Colorado River by 90 feet, at least temporarily. The largest historical debris flow occurred in 1939, and the 1939 deposits are dwarfed by the 3,000-year-old deposits. The 1939 debris flow didn't dam the Colorado River, but its debris fan constricted the river by about eighty percent.

A total of six debris flows have occurred historically in Prospect Canyon, and each changed the rapid, at least temporarily. The rapid that Powell and Stanton saw was wide with lots of exposed rocks in the middle of the river at discharges of less than 10,000 cfs. The rapid remained stable from 1869 until Don Harris and Bert Loper ran the rapid at 7,700 cfs in 1939. Bill Gibson filmed their runs down the right, which show them eddying out on river right *upstream* of the Black Rock. The September 1939 debris flow changed all that, creating a rapid with a higher velocity and greater drop. The rapid fascinated P.T. Reilly, who first saw the rapid in 1949. Reilly loved to photograph Lava Falls from John Riffey's light plane, flying low over the rapid. In so doing, Reilly documented the 1954, 1955, and 1963 debris flows in his aerial views, as well as capturing the widening out of the rapid by Colorado River floods, particularly the 1957 flood. Georgie White, interestingly enough, witnessed the 1954 debris flow as it occurred, describing it in her diary as a "big black lava flow." She is one of the few people who have ever witnessed a Grand Canyon debris flow. The 1955 debris flow,

Chronology of Late Holocene Debris Flows from Prospect Canyon

Deposit name	Age of deposit (yrs before AD 2000)	Calendar date (AD unless noted)	Where deposit is in relation to the Left Scout Point
tua	3050±600	1050 bc	Left Scout Point is on the deposit.
tub	n.d.	n.d.	Low saddle across Prospect Wash; difficult to see.
tuc	n.d.	n.d.	High point downstream of left scout and wash.
tia	2250±600	250 bc	Low terrace, apex of debris fan, US side of Prospect Wash.
tib		2250±400	250 bc Just down canyon from tia and against tua.
tic	n.d.	n.d.	Large surface below cliff of Left Scout Point, down canyon from tia and tib, up canyon from tie.
tid	n.d.	n.d.	Indistinct small deposit.
tie	n.d.	n.d.	Trail at base of left scout crosses tie.
tif	539±90	1434	Pile of unvarnished boulders adjacent to tic and toward Prospect Wash.
tig	61	1939	Large, fresh-looking terrace, us side of Prospect Wash near the apex of the debris fan; underlies 1955 deposit.
no deposit	46	1954	No deposits remain.
tih	45	1955	Fresh-looking vegetated terraces, both sides adjacent to prospect Wash near river.
tii	37	1963	No deposits remain.
tij	34	1966	No deposits remain.
tij	5	1955	Fresh deposits next to rapid.

(n.d., not dated but bracketed by the debris flows above and below.)

combined with rearrangement of boulders by the 1957 flood, created most of the now-familiar features of the rapid, including the Ledge Hole and the V-Waves.



A hiker friend of Marston's photographed the rapid shortly after the 1963 debris flow. Once again, the river was highly constricted (by sixty percent), and low releases from the newly completed Glen Canyon Dam limited removal of its boulders until a 55,000 cfs dam release in May 1965. The December 1966 storm that caused Crystal Rapid to become so severe also created a small debris flow at Lava Falls Rapid, although it took a chance photograph from a Georgie White passenger to document it. John Cross, Jr. was the only boatman to notice the 1966 debris flow, noting that the deposition closed a left run. That changed after a Little Colorado River flood widened the rapid again in 1973. A generation of Grand Canyon guides became familiar with the rapid, which didn't change for 22 years, even during the

1983 flood. The March 1995 debris flow constricted the river once again, convincing that generation of boatmen that Lava Falls isn't an ancient, unchanging rapid after all. Following a little rearrangement of boulders courtesy of some dam releases, a reliable run left of the Ledge Hole became available at most water levels, and those who went right anyway risked getting caught in the Corner Pocket, a whirlpool just upstream of the Black Rock that became much more intense after 1995. At least one portage over the Black Rock to escape the Corner Pocket is now legendary in river-running history.

Since 1995, a number of stream-flow floods from Prospect Canyon have thrown new boulders from the debris fan into the river. The left run, which was beautifully smooth just after the 1995 debris flow, is now pretty bony at most water levels, but people still run left and risk the wrath of Big Bertha or the Domer Rock, whichever name you prefer. Some people have flipped on the roostertail wave adjacent to the Ledge Hole; others have slipped into the Ledge Hole during the deceptive entry. Other boaters continue to run right, and unlucky ones like Brian Dierker end up in the Corner Pocket. One thing is for sure: Lava Falls will continue to change during the remainder of our river running careers. It is only a question of when the next debris flow is going to hit. Lava Falls is by far the most unstable rapid in Grand Canyon.

For more detailed information on Lava Falls Rapid, you may want to obtain the following publication:

Robert H. Webb and others, "Lava Falls Rapid in Grand Canyon: Effects of Late Holocene Debris Flows on the Colorado River," us Geological Survey Professional Paper 1591, 1999.

This publication is available for about \$15 from the following address:

usgs Information Services
Box 25286, Federal Center
Denver, CO 80225-0286

Bob Webb and Peter Griffiths

News from the GCMRC Logistics Coordinator

OK, SO THE commercial river season is starting to heat up and so are things at gcmrc. On top of our regular schedule we will be adding trips to study the effects of the Low Summer Steady Flow (lssf) experiment (marked with *) which as of this time has been “tentatively” approved. Due to the increased flurry of activity, I have been unable to collect project “blurbs” as in last quarter’s BQR—sorry. The schedule of trips I have listed is definitely subject to change at any moment’s notice. Hopefully, this will give you some idea of the trips you may encounter in the busy season this year. As always, I encourage everyone to make contact with trips you may encounter. They will be very busy but are open to sharing information about their projects with you and your folks. Let’s keep those lines of communication wide open!

Now what about this Low Summer Steady Flow experiment...what’s that all about?

The Reasonable and Prudent Alternative (rpa) of the Fish and Wildlife Service’s 1994 Biological Opinion (bo) on operation of Glen Canyon Dam contains an element (1.A) that addresses a program of experimental flows for endangered native fish. These experimental flows are to occur during low water years of approximately 8.23 million acre feet (maf) delivery to the Lower Colorado River Basin. The purpose is to verify an effective flow regime for management of endangered fish of the Colo-

rado River in Glen and Grand Canyons. In January 2000, Reclamation identified that, for the first time since the bo was accepted, projected inflows to Lake Powell were anticipated to be low enough to conduct a test of the rpa 1.A hydrograph intended to benefit endangered fish.

The hydrograph proposed and now tentatively scheduled will include flows of steady 19,000 for the months of April and May with a spike of 31,000 for four days from May 2–5. At the end of May the flows will drop to 13,500 for three days and then to steady 8,000 until the end of September. There will be a second spike of 31,000 for four days September 5–9. The hypothesis to be tested by this hydrograph is based on the idea that high flows in the spring timed with native fish spawning will increase and stabilize habitat at the mouths of tributaries. The summer steady flows provide a warmer and more stable mainstream habitat to promote survivorship and overall health of the native fish population, followed by a fall spike to impact the non-native (predatory/competing) fish population.

This is obviously an incredibly oversimplified view of what it’s all about, but hey, now you’ll at least have some idea of why you’re down there dinging those props this summer. Good Luck!

You can contact me at (520) 556-7207 or email at cfritz@flagmail.wr.usgs.gov.

Fritz

GCMRC Science Trips May—July 2000

Trip	Dates	Principal Investigator
Humpback Chub Genetics	April 24–May 7	Mike and Marlis Douglas
Breeding Avifauna 00–II	April 29–May 16	Jennifer Holmes
*Sandbar/Channel Margin Survey	May 6–21	Matt Kaplinski
USGS Sediment Storage Research	May 11–22	Roberto Anima
*NAU Vegetation Surveys	May 2–15	Mike Kearsley
Channel Bathymetry	May 13–29	Mark Gonzales
Kanab Ambersnail Monitoring 00–II	May 17–31	Jeff Sorensen and Clay Nelson
Southwestern Willow Flycatcher 00–I	May 19–June 2	Matt Johnson
*Native Fish Habitat Survey	May 24–June 4	Frank Protiva
Bird-Bug 00–II	May 25– June 9	Helen Yard
Breeding Avifauna 00–III (comb.)	May 27– June 13	Jennifer Holmes
Southwestern Willow Flycatcher 00–II	May 27– June 13	Matt Johnson
Navajo Cultural Monitoring	June 2–15	Robert Begay
*LSSF Native Fish Monitoring	June (tba)	Valdez, Carothers
USGS Streamflow Monitoring 00–IV	June 14–23	Nancy Hornewer
Southwestern Willow Flycatcher 00–III	June 19–July 1	Matt Johnson
*Aquatic Foodbase 00–I	June 20–29	Joe Shannon
Bird-Bug 00–III	June 30–July 13	Helen Yard
Southwestern Willow Flycatcher 00–IV	July 4–18	Matt Johnson
*LSSF Native Fish Monitoring	July (TBA)	Valdez, Carothers
Kanab Ambersnail Monitoring 00–II	July 24–August 6	Jeff Sorensen and Clay Nelson
USGS Streamflow Monitoring 00–V	July 26–August 4	Nancy Hornewer

Go Humpies!

LOW STEADY SUMMER FLOWS (LSSF). As of April 6, the Bureau of Reclamation (bor) decided that, barring no big surprises in the weather, low steady flows of 8,000 cfs will be released from the dam from June 1 to October 1. The April 1 National Weather Service prediction for water year 2000 inflow to Lake Powell is 9.65 million acre feet, low enough that the bor is willing to run the experiment promised to US Fish and Wildlife Service at the close of the Glen Canyon Dam EIS. That promise (a Reasonable and Prudent Alternative) was to experiment with low steady summer flows to determine if the humpback chub (and other endangered native fishes) could thrive and establish a reproducing population in the main stem under warmer conditions. Presently, the chub only reproduce in the mouth of the Little Colorado River (lcr), which puts them in jeopardy status.

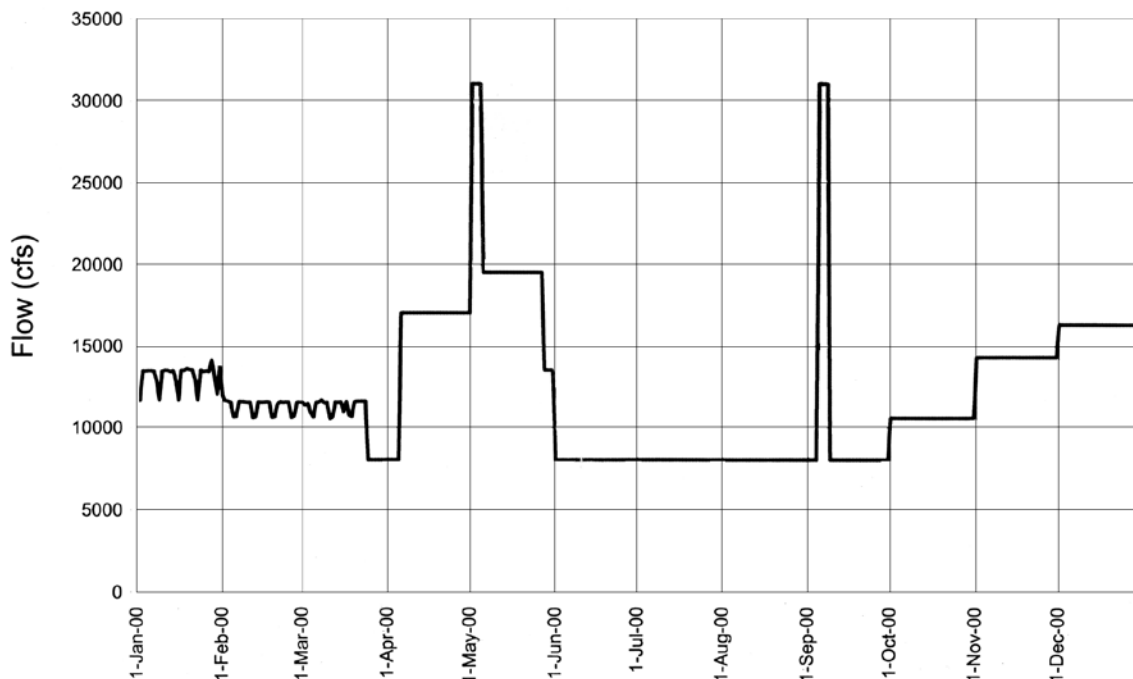
As a result of the lssf, there will be a large reduction of hydropower revenue due to the loss of peaking power from the lssf. We thank Dave Sabo of Western Area Power Administration, Leslie James of Colorado River Energy Distributors Association, and Ted Rampton of the Utah Associated Municipal Power Systems for their willingness to support the lssf experiment and provide the two million bucks required for the additional science and monitoring.

The planned hydrograph for the summer is shown below (but, of course, things are always subject to change). As of April 10, the plan is for constant 17,000 cfs through the rest of April. On about May 3, a 31,000 cfs spike will be released for four days. The rest of May will be constant 19,000 cfs, stepped down to a constant 13,500 cfs, May 26–31. Beginning June 1, Plan A will be constant 8,000 cfs until October 1. If the late season weather gets heavy in the Rockies, Plan B will be to fluctuate flows between 8,000–13,000 cfs for that same period. If the weather gets very heavy, the fluctuating flows will be somewhat higher.

The constant 17–19,000 cfs in April–May is designed to make the river flow around the top of the island at the mouth of the Little Colorado River (lcr) in an attempt to pond the lcr. This would theoretically create a refuge for the baby humpback chubs, so that they can get big enough to compete in the bad-ass world of the Colorado River, which is full of non-native predator fish (carp, catfish, trout, stripers, etc.).

The four-day spikes at power-plant capacity (32,000 cfs) in early May and early September are designed to flush the competitive and predatory non-native fish downstream from the mouth of the lcr. This would theoretically reduce competitive pressures on the chubs as they emerge from their lcr nursery and try to make it in

**Proposed Glen Canyon Test Release - CY 2000
Most Probable Hydrology - Mid March Forecast**



the outside world. We've got our fingers crossed that the predators won't also flourish in these warm, low flow conditions.

Impacts to Boaters from the Low Steady Summer Flows.

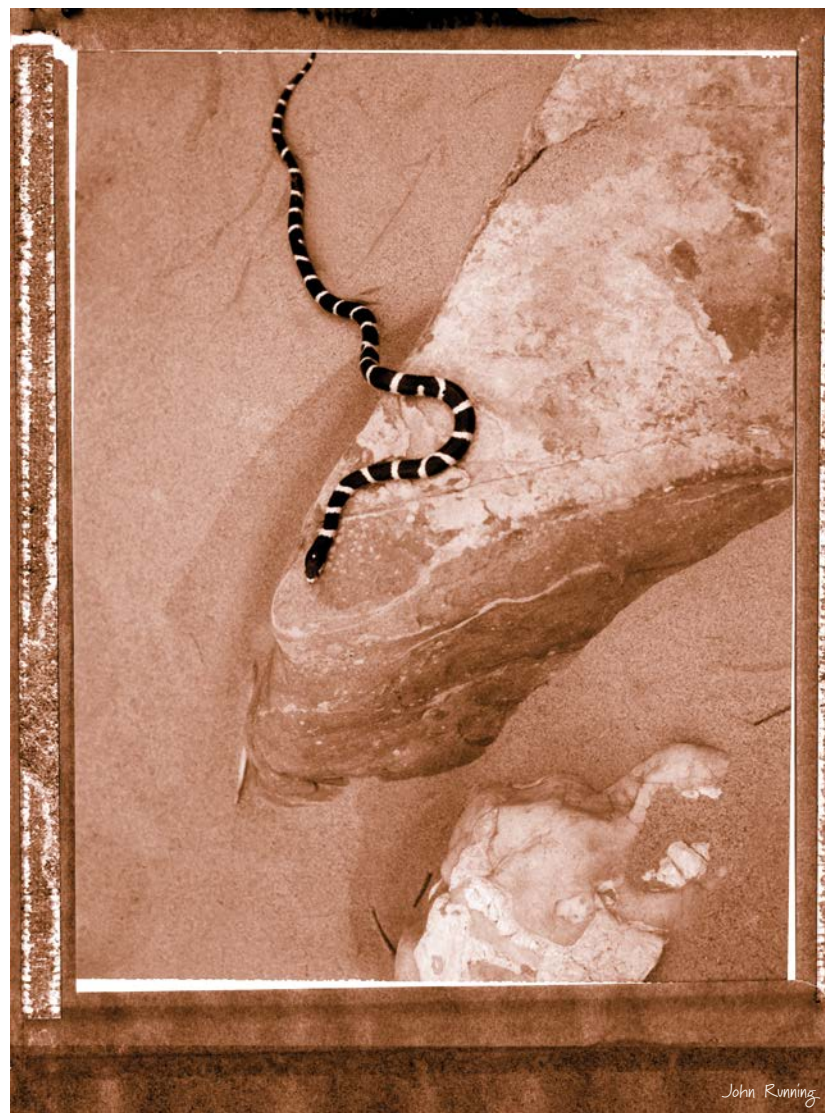
- 1) The average speed of the current will be low, challenging all boaters to work harder to stay on schedule.
- 2) More on-river time will result in less time for side hikes.
- 3) Camps will likely smell of urine, unless boaters are very conscientious about ensuring that everyone pees in the river, not on the wet sand near the shoreline.
- 4) Boaters will be more stacked up behind major rapids. More boats could wrap and people will need assistance. More equipment could be damaged or lost due to the rockiness of the rapids.
- 5) There will be many more places to camp than previous years.
- 6) The river will be slightly warmer with less danger of hypothermia.

Institutional home for Grand Canyon Monitoring and Research Center. The institutional home for gcmrc will soon be the us Geological Survey, rather than the Bureau of Reclamation or the National Park Service, a debate for the past two years. This is good because it relieves the bor and the nps from potential conflict of interest. It gives the usgs, an Interior agency devoted to science, the opportunity to demonstrate its scientific and administrative acumen in the service of adaptive ecosystem management.

Adaptive Management Program (amp) Strategic Plan. We hope to complete and adopt the amp Strategic Plan at the July 6-7 Adaptive Management Work Group (amwg) meeting in Phoenix. I have worked with Rick Johnson of the Grand Canyon Trust to infuse the plan with an ecosystem management paradigm, as differentiated from a single species management paradigm or hydropower paradigm. Ecosystem management recognizes the need to re-establish the primary elements of the native

ecosystem that existed prior to disturbance from the dam. To do this, we attempt to re-establish "natural pattern and process" for water quality, temperature, flow regime, and sediment, while allowing for a "natural range of variability" in native ecosystem species and physical elements. The test flood of 1996 and lssf are examples of the "natural pattern and process" being restored to the Grand Canyon river ecosystem. We plan to do more.

Andre Potochnik



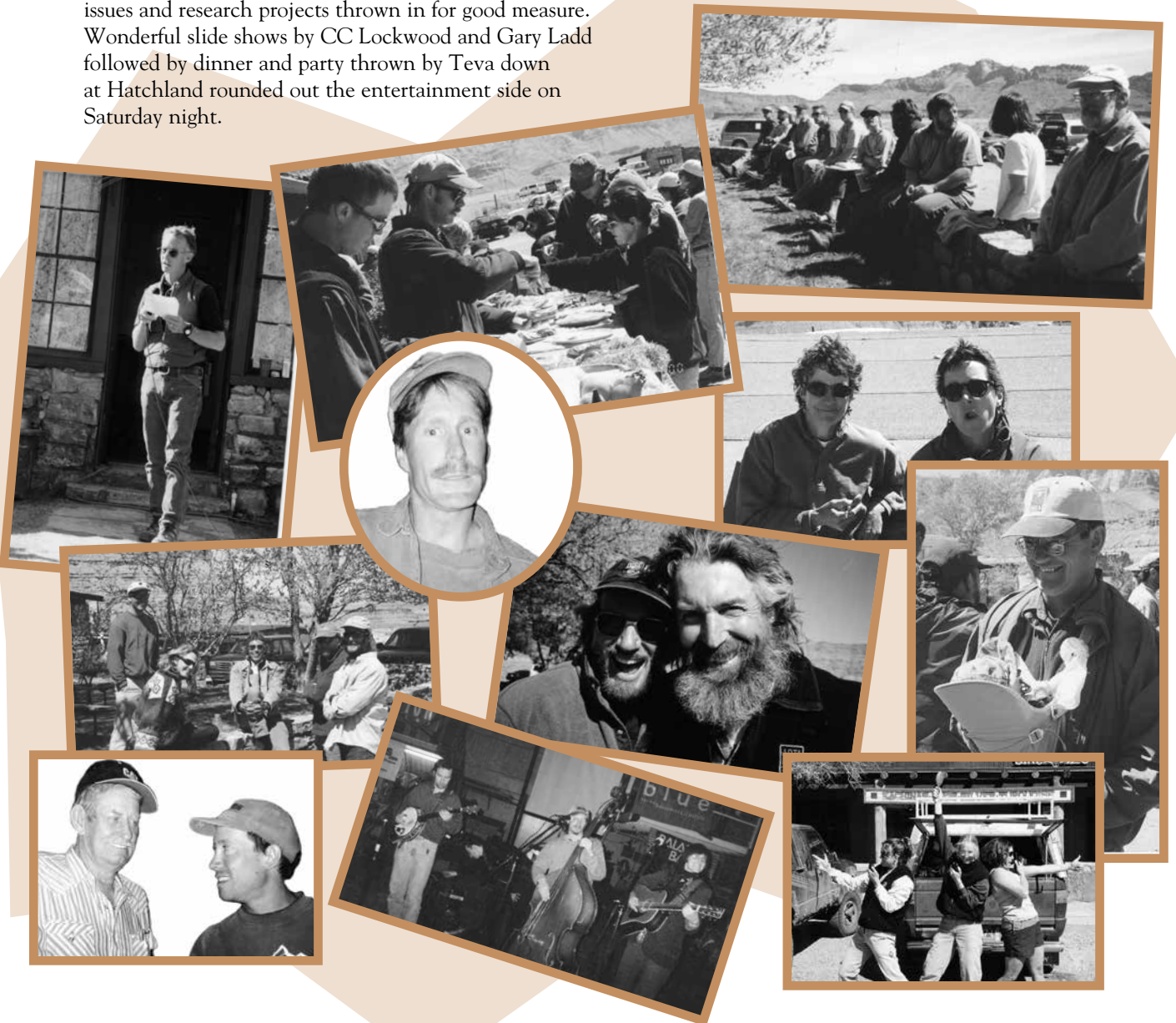
What a Weekend!

WELL, IF YOU WEREN'T THERE, you really missed out! The Guides Training Seminar (GTS) Land Session 2000 was an unqualified success with approximately 125 guides attending for the oh-so-stimulating talks over the April 1st weekend. Folks crowded (and we mean crowded) into the Old Marble Canyon Lodge for the slide shows and films (what's a little closeness among friends!), and moved outside to enjoy the beautiful weather when possible. Of course the GTS always brings a snowstorm, but at least it restricted itself to Flagstaff this time around!

After the nps introduction with J.T. Reynolds, Patrick Hattaway and Tom Pittenger, guides got a crash course in all the "ology's"—geology, archaeology and biology with human history, resource management issues and research projects thrown in for good measure. Wonderful slide shows by CC Lockwood and Gary Ladd followed by dinner and party thrown by Teva down at Hatchland rounded out the entertainment side on Saturday night.

Many heartfelt thanks to so many folks: GTS coordinators and helpful volunteers, Grand Canyon river outfitters, the Grand Canyon Conservation Fund, the many fabulous speakers, Grand Canyon National Park, Marble Canyon Lodge, Teva, Hatch River Expeditions and everyone else who worked so very hard to make this important event such a success. It was a commendable cooperative effort and we deeply appreciate all the support! The GTS is always a great way to get together at the start of the river season, see old friends, make new ones, renew that special sense of community and learn really cool stuff to boot. Like we said, you shoulda been there!

Lynn Hamilton



GTS River Trip 2000

OUR FLOTILLA CONSISTED of a High Desert motor-rig, four oar boats, a paddle raft, two kayaks, and one canoe. We launched on April 4 after group introductions, a clean-up of the GCRG Adopt-a-Highway section, and our first hike to Lees Overlook with a compliment of 26 participants.

After our first camp below Badger Rapid, Mike Latendress discovered that in the modern canyon, a condor can quickly trash a red canoe flotation bag, but a satellite phone can aid its replacement almost as fast—by Phantom.

Greg Woodall and Melissa Schroeder, our NPS reps, spoke at many opportunities about reveg projects and tantalizing hidden archeo treasures in the river corridor—someplace.

We started at 8,000 CFS which became 15,000 CFS by Hance—much to the relief of motor-rig boatman, Newt Davis who had a great run. However after Newt made a fast pull-in in the back-eddy below the rapid (in anticipation of helping the flipped paddle raft), it took almost the full crew of the oar boats to get Newt's Big Blue off a stubborn rock, but a half-hour later we were on our merry way again. We didn't exactly have a formal white-water rescue class, but our paddle boat provided the real thing with flips in the right run at Hance and the left run at Crystal. Two oar boats had similar excitement, one at Hermit and also at Crystal. Along with the summer-like weather, our kayaks and canoe facilitated quick recoveries in all cases.

Our geology theme over the course of the trip was the Early Earth and the Canyon's basement rocks contribution to "Rodinia" and the subsequent Grand Canyon series deposition as described by Lisa McFarlane and Carol Dehler. Carol took us all for a great hike up Kwagunt Creek where we learned about the Chuar group. Nat White, our Lowell Observatory astronomer par excellence, had a magnificent sky to tell us about the elliptic, the moon as a direction finder and the marvelous conjunction of Mars et al. just beyond the dark canyon walls. But we got the visual later in the daytime with boatman in a circle representing stars, planets and the sun. Mike Anderson put real color into canyon history with the yarns of the early adventurers and how fortunate we are to still have our wilderness corridor. Ellen Seeley gave informative talks on the meaning of canyon interpretation, and Ed Cummins, Ray Hall, and Dave Desrosiers added to our appreciation of the good people in the Park Service.

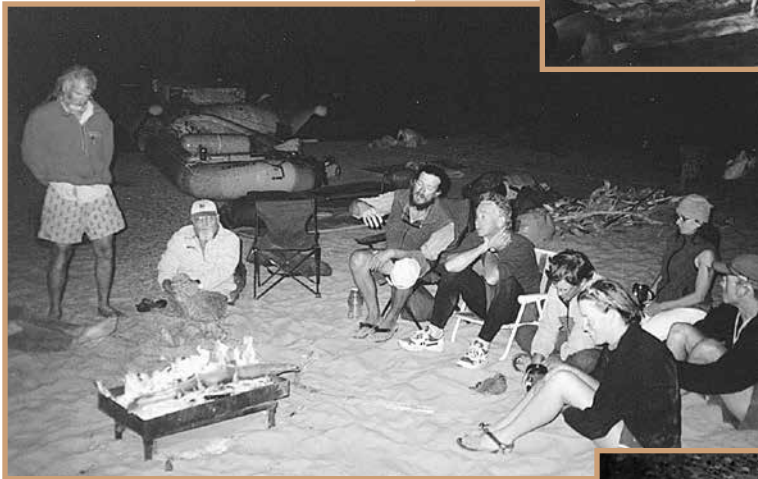
Noel Eberz had endless handouts on a variety of topics, and organized great speaker sessions in the morning or at evening campfires, although sometimes the natives were restless and settled into more primitive chants and ceremonies. John Middendorf gave talks on National Park philosophy and Wilderness issues, and was the chief engineer for our two sweat lodges. Sharon Wilder of the Hualapai Department of Natural Resources made our sweats a special occasion with sage on the hot rocks, Hualapai creation stories, and visualizations of being a bird flying over the Canyon recalling all the great places on the trip.

Except for a brief rain squall during the night after our Mile 220 festivities, the weather was perfect. The undeniable Ammo Can Rope Tug champion was Mike Long, although most contenders had plenty of excuses for hitting the sand first.

All told we have many people to thank for the success and enjoyment of our effort. There is something special about the cooperation of the river guides, the commercial outfitters, the Grand Canyon National Park personnel, and our invited speakers.

Noel Eberz





Photos by Noel Eberz

Food and Medicine of the Ancestors

Mesquite (*Prosopis* spp.) is a common shrub or small tree found growing throughout the southwest deserts below 5,000 feet. It is easily identifiable by its dark woody base, straight thorns, and legume seed pods. A drought resistant tree with roots that tap deep into the ground-water supply, it marks the pre-dam high water zone along the Colorado River corridor in Grand Canyon.

Native peoples of the southwest relied extensively upon the mesquite. It was among one of the most important food, medicine and utilitarian plants of the greater southwest. Villages were often constructed near large mesquite habitats. This is no surprise since a mature mesquite may produce up to 35 pounds of fruit a year. That fruit was then collected, dried, toasted, and then pounded into a flour which was used to bake cakes and bread. This was an ideal travel and storable food.

The sap is still used as a paint and adhesive for pottery and as a hair dye. Mesquite wood is considered one of the best materials for making utilitarian items such as bowls, spoons, and bows. Of course I don't have to mention it makes for great firewood and barbecue charcoal.

The powdered leaves, pods and bark are all excellent for healing cuts and abrasions. A tea of the powdered plant is used to treat diarrhea, ulcers, hemorrhoids and any intestinal upset. This is due to its anti-microbial and astringent properties. The pods make an incredible healing wash for pink-eye. Dry and irritated throats can be soothed with a cup of this sweet tasting mucilaginous beverage. The pods are also helpful in the treatment of diabetes.

The mesquite beans can be easily collected in nature's supermarket. Just gather the tan pods from the tree then bake them at 150 degrees for thirty minutes. Once cooled, you grind into a powder. The leaves, bark and branches may be harvested anytime. They work best when dried in the shade before use. The flour can also be purchased by the pound through Native Seed/Search in Tucson, Arizona.

DeeAnn Tracy

References:

Michael Moore, *Medicinal Plants of the Desert and Canyon West*, Museum of New Mexico Press, 1989.

James W. Cornett, *Indian Uses Of Desert Plants*, Palm Springs Desert Museum, 1995.

Janice Emily Bowers, *Shrubs and Trees of the Southwest Deserts*, Southwest Parks and Monuments Association, 1993.



Karen Klorowski

Interim Changes to Management of River Access

*When the plowman plows and the thresher threshes,
they ought to do so in the hope of sharing in the harvest.
(I Corinthians 9:10)*

Readers of this journal, most of us being long time private boaters as well as guides, have seen interim changes—changes to the river use and access rules that have been implemented without benefit of the Colorado River Management Plan (CRMP). For example, we have seen new fairness in winter launches awarded to private boaters based on waiting list position, not on call-in speed. A similar change was made for cancellations. These changes have been made by Grand Canyon National Park administrators because they felt it was appropriate, not because the CRMP proclaimed it. Managers have made changes to improve the abominable treatment of private boaters implemented by the patriarchs. They have done it in the past and I hope they continue to make management adjustments as quickly as possible based on new data and not postpone vital improvements. Here is a suggested interim change to help make Canyon river access more fair.

Imagine a situation that could happen today (and by the way we welcome ex-guide Mark Leachman back to the land of the healthy). Suppose a boater had put

his name on the private boater waiting list over thirteen years ago and in the last year he had developed leukemia and couldn't go when his launch date was finally assigned this year. If the Park allowed it, he could defer his trip into the next year but no longer. However, under no circumstance could he have an equally qualified trip member step in as trip leader. If he couldn't go on the assigned deferred date, his trip would be canceled. Compare that to a guide who was scheduled for a trip and one minute before launch he fell off the truck and broke his leg. The trip wouldn't be canceled or deferred, but control of it would be transferred to another guide. I think the guide situation is fair and reasonable. I think the private boater situation is unfair and unreasonable.

Arguments about the length of the waiting list don't matter in the leukemia scenario so I won't address them. What does matter is that the National Park Service has postponed consideration of several interim changes until the CRMP is complete sometime within the next four years—maybe. The postponement prolongs unfair treatment. One interim change suggestion that was deferred was a proposal to allow designation of alternate trip leaders for private trips. It is within the Park's power to immediately implement this simple change in permitting that would dramatically improve the fairness of the leukemia/broken leg scenario.

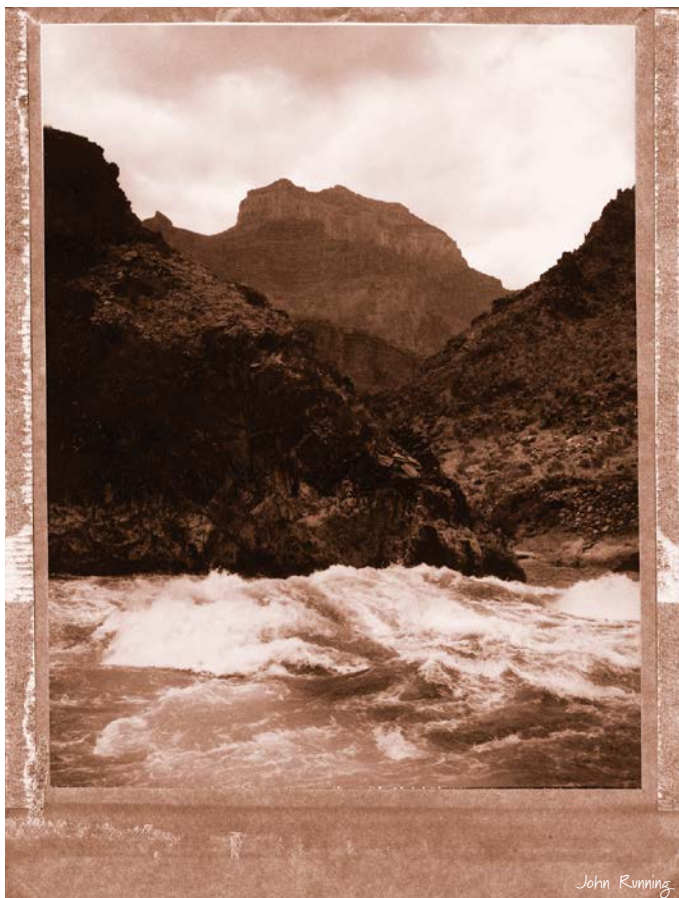
Fairness does not suggest that the commercial trip rules become like the private rules and demand the broken leg trip be canceled. To address fairness in this case the Park could make the private rules more like the commercial and allow the leukemia trip to launch with an alternate trip leader. It would not affect any guide's job or any outfitter's profit or profitability. It would allow more private trips to launch with less Park Service time involved. It would probably let more guides take their off-season trips without having to use their boss's allocation and equipment to run a "training" trip down the Canyon (come on guys, I was a guide, too).

If any guides have suggestions for immediate changes in river management, they should write to:

Superintendent Rob Arnberger
Grand Canyon National Park
po Box 129 Grand Canyon, AZ 86023

Be sure to specify that the request is for immediate consideration and is not a suggestion for the CRMP.

David Yeamans



John Running

A Tribute to Wesley

WESLEY WAS A RIVER GUIDE for Arizona Raft Adventures from the early seventies to 1990. On March 31, 2000, he died of massive liver failure at the Veterans Hospital, Prescott, Arizona. He was laid to rest on April 4th, in the family plot in Williams, Arizona.

“Alive Below Crystal” (abc) was coined by Wesley Smith. He once observed at an abc party to a bunch of guides, “remember, that no matter where you are in life you are always above Crystal.” Years later, John Running asked Wesley if there was ever a time when you were not above Crystal. “Yeah,” said Wesley quick as a flash,

“when you’re right in the fuckin’ middle of it.”

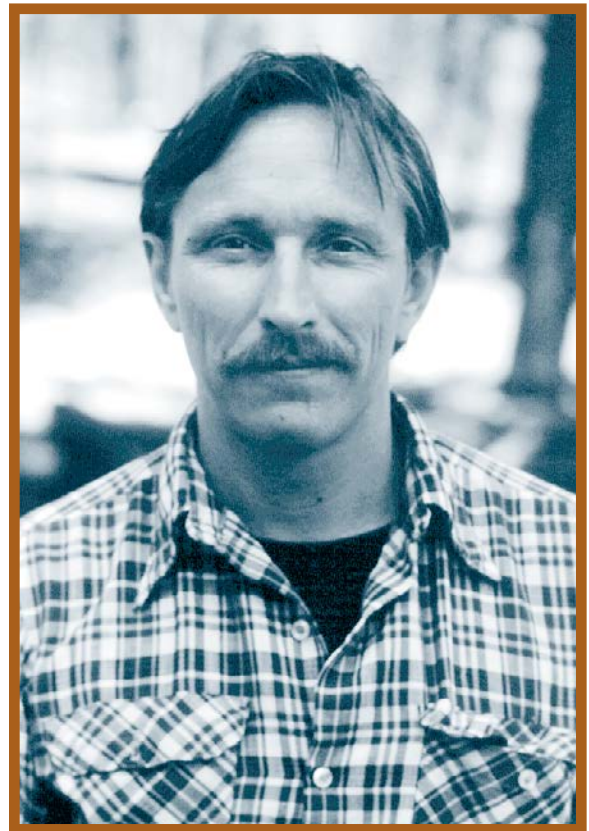
What follows is what some of his friends had to say about him. I have had to edit for space. My apologies to the writers whose eloquent words were shortened. Wesley Smith will have a web site soon, placed by Thomas Conners. Please submit stories to boyofoto@infomagic.com.

Donations in Wesley’s name will be gratefully received by the Whale Foundation at 7890 S. Avenida Bonita, Tucson, AZ 85747.

Dave Edwards

ISERVED IN SERGEANT Wesley Smith’s squad, Second Squad, Third Platoon, Company A, Fourth Battalion, 47th Infantry in the Mekong Delta, Republic of Vietnam. The men selected him as squad leader after Wesley’s close friend, Sergeant Reggie Powell was killed. It affected him badly, always. Wesley instilled in us an innate trust. He led us footstep by footstep in the jungle. It was rough. Wesley knew where to walk, which way to go. You follow him and you’d do well. He was the best you could get. You know, in “Nam” you take your chances but if you had to take’em, take’em with Wesley. And another thing, he would have absolutely given his life any time, anywhere, for any one of us. He was like that and everybody knew it. We’d be given a job to do and he’d lead us through it...and bring us back alive. The most dangerous job was walking point. As a sergeant he wasn’t supposed to do that but he did. He could find the booby traps and sense ambush sites. He was really like that. He had a huge talent; he could bring people together. He was like nobody else. After the war sometimes I’d dream about him and “Nam” then call him up. And I swear to you, he’d be expecting the call! It was weird.

Thomas Conners



WESLEY WAS A BIT OF A MYSTERY. He was one of several unforgettable characters that I worked with in the early seventies. It was a time when many of us were trying to figure out what river guiding was all about.... While the rest of us were busy giving people what we perceived as the “Colorado River experience,” like teaching them to row and paddle... Wesley was looking after their more basic needs like patching up feet and setting up tents. He was able to be present with everyone. I believe that Rob Elliott recognized this special trait and gave Wesley the benefit of the doubt beyond what he may not have given others.... Wesley had an elusive magic about him but at the same time he was always doing battle with several dragons, dragons that many of us know. Let’s hope the rest of us have better luck. I for one will miss him, and will never forget him.

Don Briggs

I WENT AND SAW WESLEY TODAY. He is dying. He has courted oblivion and torn open his shirt exposing his chest, taunting and pleading for some invisible executioner. I am weak and afraid of what it means, the commitment to a life of ferocious intensity—it means embracing his own form of self-destruction as entirely as he did.... The unfuckingbelievable beauty that was Wesley has been fading for some time now. We remember the intensity, the painful... excruciating beauty that being with and around him was. He was my mentor and I worshiped him and adored him and he put his arm around me like a big brother and soaked me in his radiance when I was so hopelessly lost and alone and no idea of who, when, where, or what was next. He taught me things that come out only at my most holy moments and even how to walk and talk and breathe and I have never in my life had a poignant or tender or spiritual moment without thinking of him. When I was most alone and lost I would call him up again, like soldiers praying for the first time on the battlefield or pleading with God to bring back a life, or a lover and he'd answer the phone.... When he lived in New York City for awhile cab drivers would bring him home and help him inside and tell his friend Jim, "There's no charge for this one." ...For most people he was so powerful and tender that you could not but love him, but I did meet one or two exceptions...they will grieve the deepest.... He would transform people like an emotional Lazarus. For example, one time on the river he was singing only the beginnings of Christmas carols all night at the top of his lungs because they were the only songs he knew. An enraged passenger and father stormed out to the boats to shut him up and after a lengthy philosophical diatribe, the father spent the rest of the night singing with him, naked and painted with hematite, adding the verses that Wesley had forgotten. I have never known anyone, not even therapists and psychiatrists, so able to affect and change lives—except his own.... I don't know what is going to happen to me now. The Grand Canyon is a lesser place now. I don't want him to go. I don't want our trip to end.

Kevin Johnson



I COULD WRITE A DOZEN STORIES about Wesley. That's not hard to do when you think enough of someone to choose his name for your first born child. My wife and I named our son Wesley in 1982. I was faced this week with explaining to an almost eighteen-year-old the symbolism of his name-sake leaving life as we

know it by the chronic use of an intoxicating substance. This is in a society where most normal kids his age are experimenting with intoxicating substances. So we talked about a really bad year in Vietnam—to witness the deaths of hundreds of companions, then thirty

- years to drown the demons. Who can ever know what he
- endured, and at the same time, he gave us so much. ...
- Wesley was a source of inspiration and joy and spiritual
- direction for dozens of guides.... Years after a trip, passen-
- gers might not remember anybody else's name but they
- always remembered Wesley. He was there for them in
- so many ways, always sharing, always teaching, walking
- in beauty. I told my son he was named for a man who
- touched thousands of people spiritually. He said he feels
- pretty good about that.... What a funny man, so silly at
- times. And then when you'd least expect it and need it
- the most, out stepped a spiritual master to defuse a crisis
- with such amazing skill.

George Bain

• • • • •

WESLEY WAS for me a sacred clown, a kashari, a mud head, a coyote, trickster, joker. He was mischievous but never malicious. I feel privileged to have known and worked with him through the years.... He was able to open people up to themselves and the experience of being in the Canyon and on the river. There was nothing contrived or pretentious in his being. As one passenger put it, "Wesley is full of magic, his feet don't touch the ground."

Bob Melville

• • • • •
photos by Dave Edwards

Adopt-a-Beach Update



Owl Eyes, pre-flood 1996.



Owl Eyes, post-flood 1996.

IT'S THAT TIME OF YEAR AGAIN. The Adopt-a-Beach (AAB) Program saw another great season and produced some interesting new results. First, it's nice to work on a study where the input is so varied, creative and enthusiastic. And as always, GCRG sends a huge *thanks* to everyone who adopted a beach and added his or her input of information in 1999. It's simple: the study could not be done without you.

Last year, the most critical goal of the program was to bring it back from an uncertain fate; participation had dwindled to less than half of that of 1996. *The good news is that the numbers went back up this year.* Ten more beaches were adopted in 1999 than in 1998, and the study benefited from a much greater spread of data not only from increased numbers, but also in the beaches that were adopted. (More beaches were chosen that had not been chosen in 1997 and 1998, helping to put the whole study set back in balance).

This last weekend at the GTS more folks signed up to adopt a beach for the 2000 summer season than in any of the last three years! Forty-one beaches were claimed within a couple of hours on Sunday, and there are still a few beaches left that need adopters. *The program could still use the help of anyone who would like to adopt a beach for the 2000 summer season.* Here's why:

1) Due to low flow projections for this summer (i.e., 8–15,000 cfs all summer) many of the camps in the AAB study set will show greater exposure than they would during standard (up to 20,000) flow schedules. This will enable trips to camp on newly exposed, lower elevation surfaces that have formed as eddy deposits or “bench” areas at many camps. If we can get lots of photographs of all of the beaches, it may be possible to determine new information about the effects of visitation and lower-stage fluctuating flows on these “new” campable areas. In



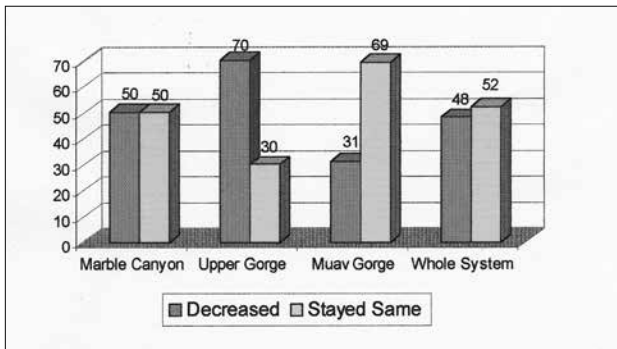
Owl Eyes, July 1999, showing a return to pre 1996 Beach Habitat Building Flow conditions.

addition, this low water effect may encourage more use of camps that are uncampable or undesirable at more common higher fluctuating flows (such as Clear Creek, Talking Heads, or Olo).

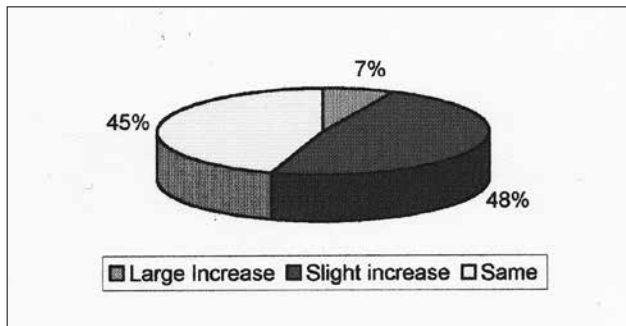
2) The more repeat photographs we receive for each individual beach, the better. Because some adopters can only do a couple of trips, it's great to double up and really get a lot of visual and written information about every site.

Is change slowing over time?

The most significant observation made this year is that beaches are showing an *apparent increase in relative stability over time.* It's difficult to document this effect without numerical data, but photographs and guide comments have shown trends in support of it. For example, in the year following the 1996 Beach/Habitat Building Flow (BHBF), beaches showed a fairly rapid



Change to beaches per critical reach and whole system, 1999.



Change in vegetation visible in photographs from 1996-1999.

decrease in size throughout the system, with a far lesser amount showing little or no change. This was more apparent in some beaches (i.e., Owl Eyes, Tuckup, Salt Water Wash, Tatahatso) than in others. During 1997, beaches continued to decrease in size at a significant rate (that is, photographs still showed very noticeable decrease in size throughout the summer). Some photos from the 1997 season show the most dramatic erosion to beachfronts for all years of the study, in response to continuous high flows during mid-summer and in November 1997. In 1998, decrease was still visible at many beaches, but we had to look very critically at each photo to tell for sure; the number of beaches showing no change was climbing, and the number showing decrease was beginning to fall. In 1999, more beaches remained *unchanged* than in all previous years (1996-98).

Regardless of the cause of this general trend, repeat photography of Grand Canyon camping beaches supports the observation that magnitude of decrease in beach size is *more pronounced* in the time shortly after a beach rebuilding flow, than in the time *long after* a rebuilding flow. This was also reflected in the trend of some of the results over the full four seasons of the study. The amount of dynamic change is less noticeable over time.

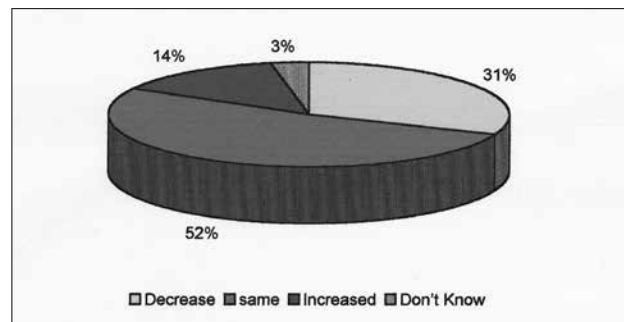
1999 Results

There was very good photographic coverage of adopted beaches in the 1999 summer season. The most evident trend was the increase in the number of beaches that showed very little if any change. The greatest concentration of these stable beaches was in the Muav Gorge critical reach (rm 131-167). The greatest concentration of beaches that decreased in size was located in the Upper Gorge critical reach (rm 76-116). But, in Marble Canyon (rm 8-42) and the whole system, the proportion was almost half and half.

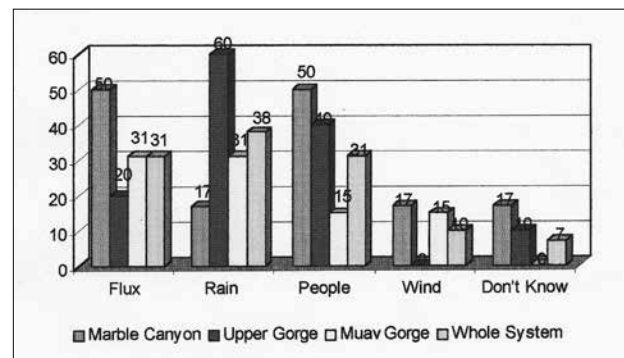
The general observation of change in the off-season (November 1, 1998-March 31, 1999) followed a similar trend. Since 1996, every off-season has shown a lesser amount of beaches that decreased relative to those that showed little if any change.

The longevity of high elevation sand deposited by the BMBF was assessed again in 1999. (The number of beaches in the study set that are still benefiting from deposition in that high flow event, and those that have degraded back to, or close to, their pre-flood condition.) The results showed that, of the beaches measured in 1999, more of them showed a return to their pre-flood condition than in all previous years of the study.

Every year an assessment is made to determine what processes are most responsible for the decreased size, and



Change to beaches over the winter season November 1, 1998 to March 31, 1999.



Processes causing decrease in beach size per critical reach and the whole system, 1999.



Salt Water Wash, Pre-flood 1996.



Salt Water Wash, Post-flood 1996.

in what areas of the corridor. Previously (1996–1998), results have been somewhat similar. Generally, guide comments and photos verified that cutbank formation due to fluctuating flow releases had the largest effect, regardless of the critical reach. In 1997 gully formation due to rainfall events and side canyon flashes was a significant mechanism. Effects due to visitation, wind, or unknown processes have played a lesser role. This year (1999), results were somewhat different. Throughout the corridor, rainfall gully formation played the dominant role in decreasing beach size, although the greatest concentration was seen in the Upper Gorge critical reach. This was evident at places like Schist, Granite, Hermit, 120 mile and Stone, although unfortunately the rephotography at Stone Creek did not reflect the large flash flood event that occurred there in July. Also notable was an increase from previous years in the effect of visitation to beaches that was reported by guides. As in previous years, effects due to wind or other effects was less significant.

Vegetative encroachment? We were interested in determining if the rephotography would show an increase in vegetation at camps. A complication arose in that photographs of many beaches show only a narrow portion of the beach front; a view of the whole camp would better serve to assess if increased vegetation were becoming a problem for the quality of campsite access. Still, about half of the beaches showed a slight increase in vegetation visible in the photos, while far fewer showed a large increase. So far, guides have not indicated in this study that it's even an issue. We'd love to hear more from you about this.

Finally, we want to thank everyone (heartily) who adopted a beach in 1999 (and every year), and all of you who promptly signed up at the April GTS to adopt beaches for the 2000 season. It's exciting to have almost all of the study set again under the stewardship of guides (including an unprecedented participation by folks in the science community and the Park Service). We still



Salt Water Wash, October, 1999, showing a return to pre 1996 Beach Habitat Building Flow conditions.

have room for more adopters—please give us a call and we'll send out a packet in time for your first trip. I want to mention again and again that the program is completely dependent on your participation, and the results that have been directed through the Adaptive Management Program are due completely to all of your hard work in photographing and commenting on the condition of our camping beaches this year and every year. Of course, we want to extend our gratitude to our contributors, the Grand Canyon Conservation Fund, and the Grand Canyon Monitoring and Research Center for their generous contributions to the program.

For further clarification of the statistics and methods of analysis employed in this study, please refer to the forthcoming final report of the 1999 results of the Adopt-a-Beach Program. As always, it will be sent to adopters, pertinent agencies and interested parties.

Gary O'Brien

Bessie Haley's Bohemian Friend

ERAINE GRANSTEDT was among the first people Bessie Haley met in San Francisco in the summer of 1926. Eraine was modeling at San Francisco Art Association, where Bessie had arranged for art classes. Two years younger than Bessie, Eraine had already lived longer and harder than most nineteen-year-olds. So much so that she had abandoned her given first name and the infamy it carried.

She was born Irene Granstedt, and grew up twenty miles south of San Francisco in Mountain View, California. In the summer of 1922 she leapt from obscurity to the front page of the tabloids. "Schoolgirl, 14, Shoots Sweetheart!" Irene, said the papers, was having a troubled relationship with her boyfriend, Harold Galloway, seventeen. She borrowed a gun from a friend and, later that evening, pointed it at Harold. He grabbed her hand. The gun went off. Now Harold lay dying, his guts stewing with peritonitis, while Irene languished in custody. For weeks the headlines expounded the story of the murderous maid and her dying beau, with side bars cursing the collapse of society this calamity exemplified. But Harold failed to die. Irene got off with juvenile detention and banishment from Mountain View.

Barely a year later, she made the headlines again. Lying about her age to the judge, she had married Robert Bleibler, twenty, of Menlo Park. The marriage was annulled in less than a year. Meanwhile, Harold Galloway, who had fully recovered, was being sought for statutory rape of his new fifteen-year-old girlfriend in San Mateo. Harold was a slow learner.

Irene went to San Francisco. The crowd she mingled with might later have been called beatniks or hippies. In 1926, they were bohemians. She remarried, again with short success.

Now she was Eraine, the model. She was single again and living on Hyde Street with her brother Theodore, who was now going by Theo.

Bessie Haley may well have identified with Eraine's man problems. Just two months earlier, Bessie had

abruptly quit her job at the YWCA in Huntington, West Virginia, and crossed the border to Kentucky, where she married her high-school sweetheart, Earl Helmick. Yet six weeks later she was in San Francisco alone. The short-lived marriage remains a mystery, although many attribute it to an accidental pregnancy. If so, no record of a baby, or the termination of a pregnancy, exists. Regardless, it seemed a short, strange, and loveless marriage.

Bessie took a room with Eraine and Theo. She got a job at Paul Elder's—the biggest and best known bookstore in town and a gathering place for the Bohemian elite. She took art classes in the fall and spring, and in her spare time wrote *Wandering Leaves*, an unpublished collection of fifty poems. And sometime during the winter, Bessie and Eraine came up with a plan.

One of the most popular weekend binges was a round trip to Los Angeles on one of the huge steamers, the *Harvard* or the *Yale*. They were the fastest ships on the water at the time and were elegantly arranged with staterooms, fine dining, ballroom, and orchestra. One could leave Friday evening, dance all night each way and return to work Monday morning exhausted. In the early summer of 1927, Bessie and Eraine booked passage to Los Angeles. They were only going one way, however, with no plans to return.

It must have been a long and magical night. When they arrived, Eraine was no more. It was Greta Granstedt, the young starlet from Sweden, that stepped from the ship, and went straight to Hollywood for thirty-some years of bit-part roles. Bessie Haley, too, stepped ashore with a new destiny. At her side walked the tall handsome rancher she had met on board the night before: Glen Hyde.

Brad Dimock

This is the second in a series of previews from the forthcoming biography of Glen and Bessie Hyde, the honeymoon couple who vanished on their river trip through Grand Canyon in 1928.



Whale Foundation

WORD ON THE STREET HAS IT that some folks are confused about what the Whale Foundation is all about. It has been suggested that the Whale Foundation's repeated "statements of purpose" in the BQR suggests that drug and alcohol problems (or mental health problems) are epidemic in the boating community. Certainly such a message would be both inaccurate and damaging.

The Whale Foundation does not believe that the people who make their living in the Grand Canyon more heavily abuse alcohol or drugs, nor do we believe that they suffer from mental illnesses (such as depression) more than the general population. Indeed, we would all likely agree that the individuals who have spent long periods in the Canyon are some of the most enlightened and happy people we know. The Canyon helps us down that path—that is what brings us back and brings our passengers back. However, this same group of individuals also is strikingly lacking in health insurance.

In honor of a man who was so loved by those who knew him, the Whale Foundation was formed to offer help to those who might need a hand, to find their way back to a happier life. We would like to suggest to anyone reading, that the formation of the Whale Foundation is not an indication that the boating community is a bunch of lost substance abusers, but rather a group of people who care enough about each other to make sure our pards are covered if they need help—like catching an eddy in the Gorge to make sure everyone's through.

We hope that everyone can recognize that this is a worthwhile goal.

A group of us (who have been communicating in some fashion for a few years) recently met and discussed the immediate future of the Whale Foundation. The group consists of Sandy Nevills Reiff, Bill Karls, Bob Grusy, Robby Pitagora and Nancy Nelson—who is the group's attorney.

We, once again, agreed that the Whale Foundation is about serving the Grand Canyon boating community. Our first priority is to provide anonymous assistance. Anyone who wants to talk about a personal issue has a place to go where they will not be judged or criticized, just helped. In addition we want to back that up with any needed follow up. And we want to subsidize those who don't have the money to pay for such programs.

Let's face it. We all have to make our own decisions and we're accountable for our actions. The Whale Foundation is here to help in making a decision or just to provide a neutral ear.

Check out the Whale web site at www.thewhaler.org, or use the phone and call (520) 773-0773. Any donations can be sent to The Whale Foundation at 7890 S. Avenida Bonito, Tucson, az 85747 or call (520) 661-8739.

Do you have any ideas for the Whale? Would you like to add your spice to the mix? We want your energy and insight. Until then, happy boating.

Bill Karls

Snakes 2000

TIS SPRING AGAIN...and the birds are a singing, lizards a leaping, boatmen a boating, and snakes...still sleeping? If the snakes are still sleeping, probably not for too much longer. Not too surprisingly, the incoming data on snakes slowed as the summer ended and the fall and winter came upon us—less folks in the Canyon, less active snakes. However, some additional photos have trickled in, some from as far away as Scotland, increasing my database to over 140 records of snakes in the Grand Canyon (triple the amount of records that I had last year at this time!). The new records and newer findings (i.e. distributions, etc.) were mentioned in the "Scaly Skin?" article last fall (BQR, Fall 99) so I won't repeat that information. Yet, I will again make the plea for additional records—I

am still interested in learning about the snakes that folks encounter while in the Canyon (rim to rim, Glen Canyon Dam to Hoover Dam). The need for a voucher photograph is very important in order to verify the identification or documentation of the presence of a species. I greatly appreciate everyone's information and interest in this project and I look forward to hearing and seeing what you encounter in the Canyon this year! Please use the data sheet on the following page if you happen by any snakes. Happy rafting and maybe I'll see you down there!

Nikolle Brown

Snakes of the Grand Canyon Identification and Distribution Project: Information Sheet

I AM INTERESTED IN PHOTOGRAPHS or slides of snakes observed anywhere in the Grand Canyon region from Glen Canyon Dam to Hoover Dam. (Of course, only take the photos when it is safe and convenient to do so.) An overall body shot from a safe distance would be best.

Helpful Hints:

- There's a better chance of obtaining photographs if you respect the snakes' personal space and move slowly around them.
- The important identification features are the type and color of the pattern/bands on tail, back, sides, head.
- If the snake is seen at night, additional lighting (such as a lantern, a few headlamps or flashlights) may allow for an identifiable photograph.

At the time of the photograph, please fill out the provided data sheet below. If a data sheet is not available or handy, please note the basic information of river mile, side, and date. If the location of the snake

is away from the main river corridor, please note the approximate distance from the river, side of river, and river mile. For example, approximately one mile up the canyon at rm 196.8 l. Provide the best description of the habitat where it was found.

If the opportunity arises, photographs of other reptiles, particularly chuckwallas and Gila monsters, would be an added value to the project. A data sheet should also be filled out for these species.

Please send the photo or slide and accompanying data sheet or specific information to the below address:

Nikolle Brown
7779 N. Leonard
Clovis, ca 93611

If you have any questions or comments about this project please feel free to contact me at the above address or at the following e-mail address:
black-catnik@worldnet.att.net.

Snakes of the Grand Canyon Identification and Distribution Project: Data Sheet

Date (M/D/Y):

Time (of observation):

Observer(s):

Contact address and phone:

River Mile and Side:

Location name (if any):

Type of habitat (i.e. in the tamarisk, under/on a rock(s), on the beach, on the talus, on the trail, etc):

Location to river (estimated distance from it):

If the location was on a trail, please specify:

Provide any additional information below: (such as general color of snake, in case it does not show in photo/slide; layer of rock formation where it was found; behavior, etc.)

P.S. If you want a response regarding the identification, please just ask and provide a return address (snail mail or e-mail). Thanks for your contribution to our knowledge of the reptiles in the Grand Canyon.

photo by Dugald Brenner

Letters From the Grand Canyon: First Things First

A FEW YEARS AGO, MY FRIEND, the writer Ann Zwinger, was emerging more than a little bedraggled from the depths of the Canyon after a harrowing winter ascent in foul weather. The trail was the Bright Angel, which originates hard by the various establishments of Bright Angel Lodge, so not a few of the inevitable tourists gazed with much astonishment at the strange phantasm issuing from the nether mists and snows. As Ann tells it, one elegant and impeccably attired woman eventually approached her and asked: "Pardon me, but is there anything down there?"

Yes, Virginia, there is something down there, and it is putting flesh and spirit to that "something" that these letters are devoted.

As I see it, there are four ways to experience the Grand Canyon. The first and most common is to look at it from the rim. While hardly to be discounted—this is the only opportunity most people have, after all, and a magnificent one it is—still, this is a rather limited way. The Canyon is *there*, silent and remote, and you are *here*, in the noisy outer world of cars and telephones. There is a barrier. You are not in the Canyon, it is not in you. You have not crossed over.

The second way is from an airplane or helicopter. This is truly awe-inspiring; there you are, a pinpoint suspended over this cataclysmic ditch. But the experience is even more remote, because a smelly, noisy, vibrating contraption separates you from the ditch. The ditch is unreal and fleeting: it might as well be a photograph or a movie.

The third way is to toss all common sense overboard, join the ranks of the certifiably insane, and go downriver. Even a cursory glance at those of us who have inhabited the river for any length of time—guides, rangers, river types, scientists—shows that the insanity is real and enduring, a sort of holy madness. Once in the river's coils, the rest of the world never again looks the same. But even that experience has limits. You are tied to the river and the supplies it carries for you. And it carries you as well, in splendid dreamlike state, Cleopatra on the regal barge. You do not feel the Canyon with your toes, measure its obscure recesses pace by pace, foot by foot, stone by stone.

The fourth way—walking—is the most intimate and wide-ranging: detachment is hardly a problem. When, snail-like, you carry your house and the universe of your needs on your back, the umbilical cord is cut at last and traded for a state of complete intimacy and total freedom. You depend on nothing, you and the Canyon are conjoined *here*, at home, in the company of the ancient ones who viewed their world in a similarly

earthy, sweaty, connected and clean way. What you can do is limited only by your skill and your strength. Only after reaching a substantial measure of this conjunction does a fifth way begin to creep into your bones. At times it emerges as: "This place is making me explode, I must relieve the pressure by writing, painting, photographing, making music, making love." At other times, it is the way of curiosity and wonder. When did things happen, and how? How did the Canyon come to be? Are the hills eternal, or just a passing cloud? Has the River always worked as it does now? And the ancient people, how was it for them? Why did they leave? What about animals and plants, how do they fare when their world changes? And even, in the immortal words of a passenger on the River, just how thick are the Canyon walls anyway? This fifth way is the way of time, when the mind ranges over untold years, reconstructing in its eye, landscapes and events nearly unimaginable today, but all recorded in the now, which is the result of all that came before.

Reconstruction, then, is the business at hand. Reconstruction of the nearly two billion years since the time when, for the Canyon, history began. But first something needs be said. Much is known today about the history of the Colorado River, but much—perhaps most—is not. So we construct ideas about how things happened, visions that rhyme with what we know today. But tomorrow new things will be learned; the visions will change accordingly, accommodating the new. Knowledge is a process, not an object, always evolving, always refining, improving, approximating more and more closely the reality of what was. Change, then, is to be expected. But at any time, the vision proposed, the hypothesis advanced to explain what we see, must take into account and harmonize with the facts as we know them. A serious proposition cannot ignore what is known or what is reasonably argued just because it is more convenient to do so.

Dr. Ivo Lucchitta

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

Lost and Found: The Grand Old Man of the Colorado River

FIFTY YEARS AGO LAST JULY 8, Albert “Bert” Loper died while running his self-built boat, The Grand Canyon, through 24 1/2 Mile Rapid in the Marble Gorge of the Grand Canyon. The remains of his boat, found by party members below Buck Farm Canyon on river right, are still seen by today’s river runners. This P.T. Reilly photograph (NAU.PH.97.46.49.41, P.T. Reilly Collection, NAU Cline Library) shows Norm Nevills inspecting Loper’s boat and the memorial inscription just six days after Bert’s demise. Grand Canyon National Park Superintendent H.C. Bryant’s July 12, 1949 report of the interview with party member Howard O. Welty concluded:

“It was decided that no good could come from any kind of a rescue expedition, in that the Nevills Expedition was to leave Lees Ferry on the 12th and would be in a much better position, with four boats, to watch for remaining evidence of the tragedy. A phone conversation with Mr. Nevills on the 11th gave him full details, and he promised to search the river and to also stop at the memorial cairn” (“River Files,” Grand Canyon National Park Library; thanks to Sarah Stebbins).

The Nevills’ river trip did not find Bert’s body, nor did any succeeding river parties. But 25 years ago this April 2, “a hiker from Socorro, N.M., who did not otherwise identify himself, reported to Grand Canyon National Park rangers that he had found some human bones in the depths of the canyon near Cardenas Creek” (Ronald L. Ives, “Bert Loper—The Last Chapter,” *The Journal of Arizona History* 17(1)(Spring 1976):49–54, 51).

Dr. Barton Wright, Museum of Northern Arizona, and “skilled in anthropometry,” drew facial reconstructions from the skull that “left no reasonable doubt as to the

identity of the deceased” (Ives, 52). However, a contradictory statement in Ronald Ives’ article leaves this author with some doubt as to the location where the hiker found the bones:

“The exact site was below Lava Canyon Rapids, 75 yards from the river on the south bank, at an old high water mark” (Ives, 51).

Who was this unnamed hiker, and where did he really find Bert’s bones. Part II of this mystery will appear in the next issue of the *boatman’s quarterly review*. Let’s see if we can figure it out for the 51st anniversary of Bert’s death and the 131st anniversary of his birth. Happy Birthday, Old Man!

A. Bert I. Sciurus



CPR Recertification

A LOT OF US run around trying to locate a convenient CPR course this time of year. There are many local services who offer CPR courses in your community, including local fire departments and hospitals. In Flagstaff, also try the Flagstaff Athletic Club or local nurse and outdoor enthusiast Deborah Martin-Wille, RN, (520-773-0093) who provides informal, small-sized classes in American Heart Association two-year certification.

Mary Ellen Arndorfer

Announcements

- There have been some changes at the Post Office at Grand Canyon. In order for mail to reach Phantom Ranch, it must be addressed to the PO Box:

PO Box 1266
c/o Phantom Ranch
Grand Canyon, AZ 86023

- In the last issue of the *boatman’s quarterly review*, BQR 12:2, credit was inadvertently left off a photo on page 41, taken by the Kolbs at mile 33. The caption should have credited the image as NAU Cline Library, Kolb Collection, #568-3444. We are grateful to NAU for their photographic support of this publication.

The Writings of Otis R. “Dock” Marston

and is the preeminent historian of the Colorado River and its tributaries. No one before or since has amassed together the amount of material dealing with that subject as he did (see entry 1980 herein describing the Marston Collection).

Biographic sketches of “Dock,” as he was called, can be found in several sources, most notably in his 1976 interview for the Utah State Historical Society. Suffice to say here that he was born February 11, 1894, in Berkeley, California, and lived there in the San Francisco area the entirety of his life, until his death on August 30, 1979. Unlike some historians in their “field,” Dock was intimately acquainted with and had a close, personal knowledge of his subject, the Colorado River and its tributaries. From his first trip on the river, through the Grand Canyon in 1942, he spent the next thirty-plus years traveling its stretches in nearly every type of craft imaginable, and at many different seasons and stages of water. And in the last 37 years of his life he accumulated literally *everything* that he could in his chosen field.

Some of Dock’s contemporaries have criticized him as over-bearing, egotistical, and on occasion, down-right rude. At times he was most likely all of those, but he certainly does not stand alone in that regard. Many people who devote practically all of their adult lives, at least, to a particular subject seem to develop a rather possessive and proprietary attitude about it. In this respect, Dock was no different. But the fact remains that he was and is the foremost authority on Colorado River history.

For gathering such a massive amount of material, or perhaps *because* of it, Dock himself wrote comparatively

little about the river. In my several years of searching I have discovered but 28 items that he penned. Five of these are unpublished manuscripts, while three of them are written transcriptions of audio-recorded interviews. The remaining twenty are articles that appeared in various periodicals and books. Perhaps Dock himself explained this best in a 1964 interview: “I’ve avoided articles because while you (Francis P. Farquhar) advised me some time ago that I ought to get a few things into print in order to become known, at the same time I find that the writing of articles does take time, so I’ve tended to avoid them. [But] if anybody comes in and *really* wants one I’ll write it.”

Dock was not a great writer, literarily speaking. Many of his articles have a “wham, bam, thank you ma’am” aspect to them that always reminds me of the signature statement used by police detective Sgt. Joe Friday on the old television series *Dragnet*: “Just the facts, please, just the facts.” But Dock was not writing to win any literary awards, he was writing to present the facts on a particular topic and to educate a select number of the reading public. And to that end he certainly succeeded.

The following is a chronological listing of Marston’s 28 works, where they were printed or can be located, and a short synopsis of what each is about.

Jim Knipmeyer

The Writings

- 1949 “Running the Dolores River, 1948,” *Colorado Magazine*, October, 1949, pp. 258–270.

This first article of Marston’s is simply a publishing of his diary for a trip he did down the Dolores River in 1948, from the town of Dolores, Colorado, to Moab, Utah. It covers a thirteen-day period and was reputedly the first descent of the entire length of the Dolores canyons.

Of interest to river aficionados, is Dock’s reference to himself as “Doc,” with no “k.”

- 1951 “Those Names in the Cave...” in letters to the editor, *Desert Magazine*, June, 1951, p. 23.

Marston sent this letter in reference to an article in the magazine in February,

1951, by William H. Behle, entitled “Dellenbaugh, 1873.” It concerned his (Behle’s) observation at Cave Lake, in a western tributary of Kanab Canyon, several miles north of the town of Kanab, Utah, of an inscription evidently carved by Frederick S. Dellenbaugh and dated January 25, 1873. In the article, speaking of trying to determine the authenticity of the inscription, Behle had stated that “Neither Thompson nor Dellenbaugh make a specific mention in their journals of their activities on January 25, 1873...”

Dock was quick to seize upon this and correct Behle’s statement. In the first of many “pointed” comments in the years to come, he ends by saying,

“It may please Mr. Behle to have this support for his theory...”

- 1953 “James White’s Voyage...” in letters to the editor, *Desert Magazine*, October, 1953, p. 26.

This, again, is a response to another “letter” that had appeared in the August, 1953, issue of the magazine, from Mr. Roy Lappin. Mr. Lappin was the public stenographer who recorded Robert B. Stanton’s 1907 interview with James White, the man reputed to have ridden through the Grand Canyon on a raft in 1867. Lappin had inquired about where he might obtain a copy of the book that Stanton had told him he was about to finish. He had promised to send Mr. Lappin a copy,

but had never done so.

Dock was only too happy in his "letter" to detail why the book had never been published and to list the various sources that *did* tell about the White voyage.

- 1955 "Fast Water," in Wallace Stegner, ed., *This Is Dinosaur*, (New York, Alfred A. Knopf), pp. 58–70.

Marston was asked to write this particular chapter of this book describing the use of the Green and Yampa rivers in the Dinosaur National Monument area. He chronicles voyages beginning with General Ashley in 1825 up through the Hatch and Harris river-running enterprises. Dock also relates that the most important change that transformed the Green from a "fear-some river" to a "playground" was the development of suitable boats and boating techniques, a theme that he would continue to emphasize the rest of his life.

Of note is the fact that this is the first time that the nickname "Dock," with a "k," is used in a published work.

- 1958 "Foreword," in R. E. Lingenfelter, *First Through the Grand Canyon*, (Los Angeles, Glen Dawson), pp. 7–10.

In his "Foreword" to Richard Lingenfelter's version of James White's supposed raft trip down the Colorado River in 1867, Marston gives an overview of the various accounts of the White voyage and why they are not conclusive. He also describes some of the different people and water-craft that have traversed the Grand Canyon successfully.

In a rather "guarded" statement, Dock says that "The author (Lingenfelter) serves well by presenting new material and a cogent outline of events based upon the sources which were known to him." Not exactly a 100% endorsement.

- 1960a "Grand Canyon White Water," *American White Water*, May, 1960, pp. 19–21.

This is both a rather brief, but also rather sarcastic article on the supposed dangers of the Colorado River through the Grand Canyon. On one hand, Marston describes some of the boating accidents and even the loss of lives in some of the rapids. The result is the sometimes acid-tongued Marston at his best.

- 1960b "River Runners: Fast Water Navigation," *Utah Historical Quarterly*, July, 1960, pp. 291–308.

An editor of the *Utah Historical Quarterly* summarized this article best by stating at its beginning: "The following piece constitutes a near encyclopedic listing of river-running navigation of the Colorado River." Marston divided the article into four sections: The Upper Canyons, Power Boats on the River, The Middle Reaches and Beyond, and the San Juan and Glen Canyon. In each section is a very brief, chronological accounting of the various trips and voyages on that particular stretch of river.

This article is a perfect example of Dock's "Just the facts, please," style of writing.

- 1962 "Water Transport on the Green River in Utah," unpublished manuscript, Juanita Brooks Papers, Utah State Historical Society.

This lengthy manuscript was written for the State of Utah in U. S. v. Utah (1965). This case was initiated by the United States in 1962 to quiet title to sections of the Green River bed in Utah. The State of Utah engaged Marston to prepare a scholarly study of the Green's navigational history.

Dock composed an inclusive report stretching from General William H. Ashley's 1825 trip to the Harris-Brennan voyage of 1955, quoting descriptions from primary sources whenever possible. Many photographs, maps, and charts and graphs of Green River flows and discharges are also included.

- no date (probably 1963) "Commentary on a Report on the History and Uses of the Green River...by Juanita Brooks," unpublished manuscript, Juanita Brooks Papers, Utah State Historical Society.

This manuscript was also written by Marston for the State of Utah in U. S. v. Utah (1965). Both litigants engaged competent historians to prepare scholarly studies of the navigational history of the Green River, and for the plaintiff Juanita Brooks, respected Utah author, prepared a lengthy "Report on the History and Uses of the Green River from the Point Where It Enters the State of Utah to Its Confluence with the San Rafael," in 1963.

Dock's "Commentary...", probably written in 1963 also, was prepared as a

rebuttal to Brooks' report in the case.

- 1964 "O. R. 'Dock' Marston Interview," taped and transcribed interview, July 8, 1964.

While technically not a "writing" of Marston's, interviews such as this do constitute the transcribed "spoken words" of Dock, and are, therefore, included in this compilation.

Chronologically, this is actually the second interview done with Dock, but the other has a copywrite date of 1965 (see 1965a). This particular interview was done by fellow river-runner and historian P. T. (Pat) Reilly. It is very different from his other interviews (see 1976b, also) in that it begins in a typical fashion with set questions and topics, but eventually ends up as merely a "conversation" between Dock and P. T. Also, unlike the other two interviews, this one gets much more into the psychology of river-runners, river historians and writers, and even into Dock's own mind!

- 1965a "Otis Reed Marston: Running the Colorado River," taped and transcribed interview, March 17, 1964, Regional Oral History Program, University of California-Berkeley.

This is an interview done by Francis P. Farquhar in Berkeley, California. It was conducted for the Regional Cultural History Project of the university. It is a fairly straight-forward interview covering Marston's early life, family, his personal association with river-running, and, of course, the history of some of the other people who have run the Colorado River and its tributaries. In particular, Dock does his usual critical "job" on John Wesley Powell.

- 1965b "Points of Embarkation of James White in 1857 (sic)," *The Branding Iron*, Los Angeles Corral of the Westerners, December, 1965, pp. 1, 3–6.

This, the lead article for the publication, itself leads off with an embarrassing gaff in the title. "1857," of course, should read 1867, and was undoubtedly a printing error rather than Marston's.

The article begins with a chronological discussion of the various interviews done with White by different individuals. The main body of the article is a listing of some sixteen possible "points of embarkation" that historians and

writers have suggested. In each case, Marston provides a short description of that particular point. At the conclusion of the article, Dock gives his choice of the most probable starting point for White's raft trip, along with a brief statement of his reasons.

- 1968 "Who Named the Grand Canyon?", *The Pacific Historian*, Summer, 1968, pp. 4–8.

This article is Marston's succinct explanation for the use of the name "Grand Canyon," or "Canon." In it, he not only provides the first known use of that appellation, but also chides Dellenbaugh's backing of Powell as the. The concluding paragraph is pure Marston at his sarcastic best.

- no date (probably 1969) "Introduction," in Pearl Baker, *Trail on the Water*, (Boulder, Pruett), pp. 11–13.

Marston's "Introduction" to this biography of well-known and longtime river-runner Bert Loper is merely a brief covering of Loper's life. Many of the points covered, however, are not just chronological facts and events, but Marston's inclinations as to the mental state and psychological make-up of the person who came to be known as the "Grand Old Man of the Colorado."

Dock was, in fact, very interested in the way in which the river affected people, and this is a good example of his playing "amateur psychiatrist."

- 1969a "Denis Julien," in LeRoy R. Hafen, ed., *Mountain Men and the Fur Trade*, Volume 7, (Glendale, Arthur H. Clark), pp. 177–190.

Marston's biographical entry on trapper and trader Denis Julien, who may have covered long stretches of the Green and Colorado rivers in 1836 and after, is undoubtedly the most comprehensive writing about that "obscure" figure utilizing what was known about him at that time. Marston takes the various inscriptions, names and dates, that were evidently carved by Julien during his travels, and weaves them, along with the agonizingly few written facts about him, into the most thorough biography of that individual so far published.

The one and only drawback is Dock's failure to document and footnote all of the quotes that he uses from other sources.

- 1969b "The Lost Journal of John Colton Sumner," *Utah Historical Quarterly*, Spring, 1969, pp. 173–189.

The majority of this article is simply the reprinting of the "Daily Journal" kept by "Jack" Sumner, a member of the first Powell expedition down the canyons of the Green and Colorado rivers in 1869. The term "Lost" in the title is somewhat misleading, since it was originally printed in the August 24 and 25, 1869, issues of the Missouri Democrat newspaper. Marston also says in the article that "This document has had a confused history," but does not elaborate on this statement.

Dock's written contributions are his many footnotes throughout the text of Sumner's journal.

- 1969c "For Water-Level Rails Along the Colorado River," *Colorado Magazine*, Fall, 1969, pp. 287–303.

The biggest part of this article deals with the expedition led by Frank M. Brown in 1889 to survey for a possible railroad following the Grand (present-day Colorado) River from Grand Junction, Colorado, to the confluence with the Green River, and then on down the Colorado to the vicinity of Yuma, Arizona. Marston also briefly covers the inaugural survey down the Grand and up the Green to Green River, Utah, done earlier that same year by Frank C. Kendrick.

The lead-in to the article, however, and the last four pages, deal with two supposed inscriptions left by the Kendrick and Brown parties near The Confluence. Here, Dock gives his interpretation of those inscriptions.

- 1969d "Early Travel on the Green and Colorado Rivers," *The Smoke Signal*, Fall, 1969, pp. 231–236.

Written in regards to the "Powell Centennial" of 1969, Marston's article briefly discusses not only the various parties that descended parts of the Green and Colorado rivers, but also individuals and groups that reached their banks from overland. Dock ends the article with a critique of the 1869 Powell expedition.

At the end of the publication, the editor gives a concise, but very good summary of Marston's life and his (the editor's) slant on Dock's article.

- 1970 "Preface," in Avvon Chew Hughel, *The Chew Bunch in Browns*

Park, (San Francisco, Scrimshaw), no pagination.

Marston's "Preface" largely summarizes the history of Browns Park prior to the arrival of the Chew family, covered in the narrative of the book itself. Beginning with the passage of the William H. Ashley party in 1825, he more or less chronologically discusses the various Brown Park visitors and settlers up through the end of the 19th century.

Dock also lists some of the writings that had already been done that included the Browns Park area, accompanied by his typical observations on some of their historical accuracy.

- 1971a "With Powell on the Colorado," in San Diego Corral of the Westerners, *Brand Book II*, pp. 65–76.

For all of Marston's criticisms of John Wesley Powell, this is his only published writing devoted exclusively to that personage. Rather than a simple recounting of Powell's voyages in 1869 and 1871–72, Marston for the most part writes of Powell's shortcomings as a "historian." Interspersed throughout, and with the same point in mind, are Dock's observations concerning Powell's other biographers and those who had written about him.

Dock does concede, rather sarcastically, that Powell did speak "simple truth" at least once. In an 1889 newspaper article, after commenting on his river voyages, Powell was quoted as saying, "I was lucky."

- 1971b "The Grand Canyon Boat Parade," *The Wrangler*, San Diego Corral of the Westerners, March, 1971, pp. 1, 7–9.

This is a rather matter of fact discussion of some of the parties to navigate the Colorado River and the Grand Canyon. Unlike most of his other writings, however, in this article Marston emphasizes the various "boats" that were utilized by these parties. He begins with the crafts used by William Henry Ashley, Denis Julien, and William Lewis Manley, though all three of these ventures were above the Grand Canyon and two of them solely on the Green River. The remainder, though, did traverse the Grand Canyon.

Of some note is the fact that this article marks Marston's first lengthy discussion of motor-powered craft on the river. Interestingly, however, is his

complete lack of mention of the various inflatable rafts that have been used on the river.

- 1973 “The Reluctant Candidate—James White, First Through the Grand Canyon,” in San Diego Corral of the Westerners, *Brand Book III*, pp. 166–176.

This article is a thorough examination of the entire “First Through the Grand Canyon” conundrum. It begins with the first news reports of White’s trip in 1867 and continues with the various writings and conclusions subsequently done up until Harold A. Bulger’s *Bulletin of the Missouri Historical Society* article in 1961.

Throughout, Dock gives a factual, rather non-judgmental rendering of the James White material. But at the very end, he can seemingly not help himself and makes the observation, “...there is little likelihood that a monument honoring White will ever be built on the Rim,” in reference to the monument erected to John Wesley Powell on the South Rim of the Grand Canyon as the first to navigate its waters.

- 1976a “Separation Marks,” *Journal of Arizona History*, Spring, 1976, pp. 1–20.

As the subtitle of this article implies, it is a compendium of accounts concerning Separation Rapid in the lower Grand Canyon. In a sense, this is yet another of Marston’s critical evaluations of Powell, since it was the “incident” at Separation Rapid during the Powell expedition of 1869 that gave that stretch of water both its name and sinister reputation. Marston, of course, begins with the Powell trip and continues chronologically up until the rapid’s inundation by Lake Mead reservoir waters in 1938.

Dock ends the article with a concise review of the placing and replacing of the two plaques at the mouth of Separation Canyon commemorating the three men who separated from the Powell party at this point.

- 1976b “Otis R. ‘Dock’ Marston,” taped and transcribed interview, May 28, 1976, Oral History Program, Utah State Historical Society.

Where Marston’s 1965 interview with Francis P. Farquhar had a more formal, “professional” tone to it, with rather short, concise answers being given to the various questions, this

1976 interview is much more open, free-wheeling, and “gossipy.” It is also much, much longer and covers a vastly wider range of river-related topics.

The first fourteen pages alone cover Dock’s early life and family, while the remaining 153 pages for the most part deal with river history. Simply put, it is a literal treasure-trove of Colorado River lore.

- no date (probably 1980) “Marston (Otis) Collection,” The Huntington Library, San Marino, California.

Soon after Marston’s death in 1979, his massive accumulation of archival materials relating to the history of the Colorado River and its tributaries was deposited with The Huntington. As a reference source it is incomparable.

The Otis R. Marston Collection consists of some 406 boxes of printed materials, 13 boxes of photographs, 26 reels of sound recordings, 54 rolls of microfilm, 189 albums of photographs, 261 volumes of non-photographic materials, 157 reels of motion picture film, 56 card file drawers of negatives and transparencies, and 4 boxes of 35-mm, stereo, and half-stereo slides.

While, obviously, the great bulk of this material are accumulated from a myriad of sources and personages, all of Dock’s own diaries and journals are also present, as well as much of his correspondence. These would have to be classified as “writings.”

Lastly, there are at least two short, unpublished manuscripts in the Collection that were written by Dock. The first is entitled “Searching for Denis Julien in the Graveyard of the Colorado,” and details he and his party’s search to locate and photograph a Denis Julien name and date in the lower reaches of Utah’s Cataract Canyon before it was covered by the rising waters of Lake Powell reservoir in 1964.

The second, unsigned but attributed to Dock, is titled “Nature’s Sluice Box,” and deals with the 1897–1902 efforts of the Hoskaninni Company to extract gold from the gravel bars of the Colorado River’s Glen Canyon.

- 1982 “Commentary on Part I: James White’s Raft Journey of 1867,” in Robert Brewster Stanton, *Colorado River Controversies*, (Boulder City, Nevada, Westwater Books), pp. 233–250.

Marston’s “Commentary,” appearing in the Appendix of this reprint of Stan-

ton’s 1932 book, is similar in content to his James White article of 1973 for the San Diego Corral of the Westerners’ *Brand Book III*. Here, he steadfastly continues his belief in the concluding paragraph by stating, “...careful analysis fails to reveal any reason to reject White’s raft journey as starting at ... Though his “Commentary” was published in 1982, Dock ended it with the notation, “San Francisco, March 1979.” Thus, this was his final published writing, as he “ran the last rapid” August 30, 1979.

- no date Unpublished manuscript.

Since at least the 1950s and up until his death in 1979, Marston was painstakingly writing his own “book” about the Colorado River. As one of his close friends described it in an interview, it was going to be a “monumental and definitive work on the history of river-running and particularly the Grand Canyon.” Besides the geography, topography, and history of the Colorado, Dock indicated that it would also contain the evolving techniques of how people ran the river and, in turn, psychologically what the river did to the people.

In the same 1964 interview, Dock himself said that he had it (the book) “virtually all done in rough form.” But it proved to be a seemingly unending process. As late as January of 1979, just seven months before his death, he wrote to a friend, “At long last my book manuscript should be finished this spring.” The manuscript was willed to his son, Garth, but as of this writing has yet to be published and remains in the private holding of his family.

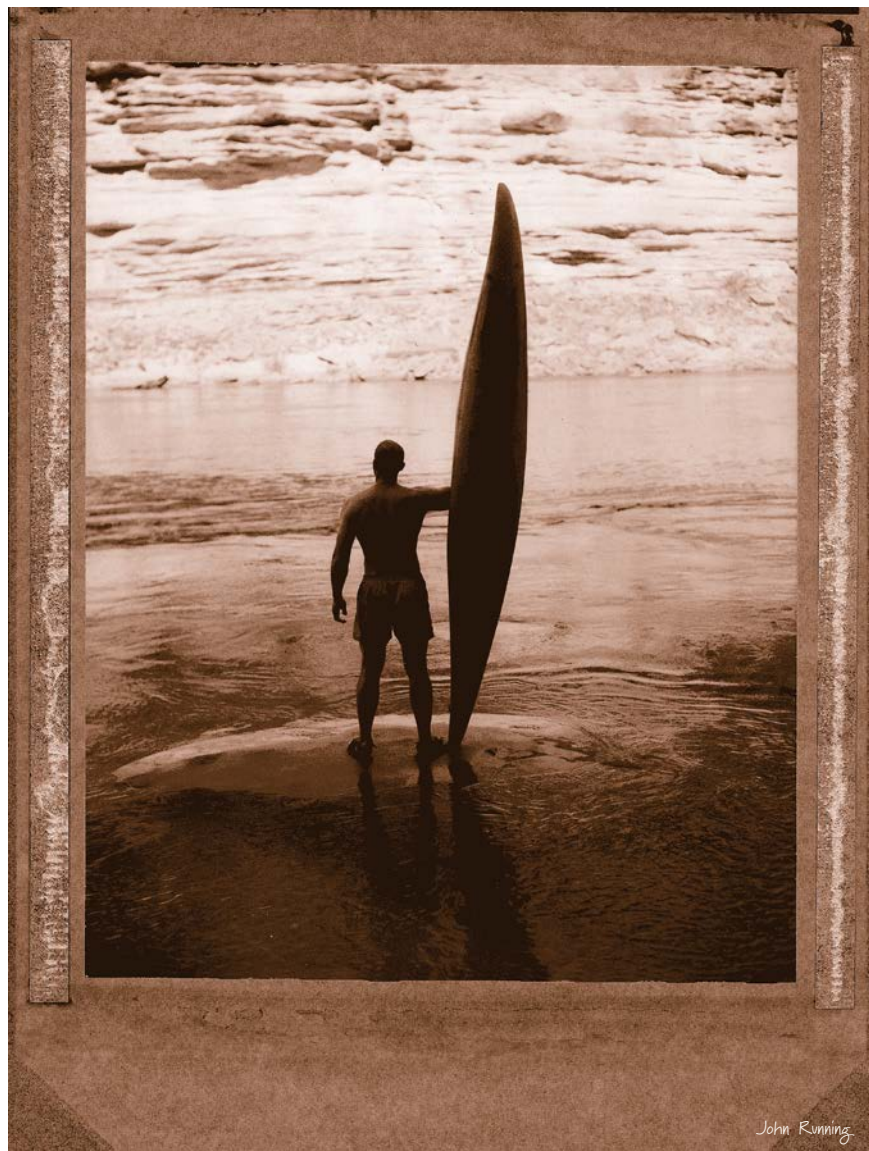
The Millennium Reunion at Phantom Ranch

Of all the myriad places people considered to witness the birth of the new millennium, perhaps no other could put this mere “tick” of time into clearer perspective than our own Grand Canyon. This planet’s most awesome tribute to the insignificance of human time has witnessed the passing of at least 5,000 millennia, and that’s just counting the time since it’s been a hole in the ground! Grand Canyon simultaneously inspires feelings of spiritual grandeur and mocks such trivial time passages. You couldn’t conceive of a more intellectually contrary place to watch the dawn of this great moment in time, than this, the ultimate expression of timelessness. It comes as no surprise then, that within the depths of this great gorge, a unique branch of the Grand Canyon family—the Phantom Ranch Family—recently gathered for a historic reunion.

Family you say? Isn’t that like a father and mother and their children? Well, if the Colorado River is the “father” of the “mother-of-all-canyons”, indeed it follows that this splendid landform can engender her own children. It all comes down to place, particularly this place and how it transforms those lucky enough to call it home at some point in their lives. The Phantom family shares a unique and colorful history that is little known to those whose only impression of the place is something akin to “that lemonade stand”. As the now far-flung members of the Phantom family took to the trail, returning in a very real sense to the place of their “birth”, they began to understand their rightful place within the larger expanse of Grand Canyon’s human history. Far from the limelight of Grand Canyon Village, Phantom Ranchers have evolved a way of life that would seem familiar to the likes of the ancestral Pai, John Hance, or W. W. Bass.

Not to mention one helluva New Year’s Eve

party! And if some people out there in “outer space” (contrasted against those who live down here in “inner space”) hold one mistaken impression of Phantom Ranchers, it’s that they are simply unruly rouges. This distorted and ill-founded reputation created a minor scare during the planning stage of the reunion when



certain bureaucrats sent a letter to all invitees stating that they had become “extremely apprehensive about the potential for uncontrolled behavior and resource damage”. In truth, the likelihood of the Ranchers trashing their cherished old stomping grounds was about as real as Pink Floyd coming down to play for the event (an honest-to-God nationwide rumor).

And so on the last day of the old millennium, Phantom Ranch welcomed back close to ninety ex-employees and their guests, some dating back as far as 1971 and darn near worthy of the title “Grand Canyon Pioneer” (some of them looked it too!). Never before have so many illustrious “All-Stars” of this unique resort ever assembled in one place and the fact that it happened at the Ranch made it all the more special for everyone involved. Many people traveled from across the country to be here and one person even changed their millennium destination from Antarctica to the Ranch! The story of how this remarkable reunion came to be is a perfect example of how deeply the Phantom experience touches the lives of all who experience it.

It started in June, 1992, long before the word *yo2k* had been invented, when manager Warren Tracy got the idea for a Phantom Ranch get-together, to be held at what then seemed a very long time in the future—the year 2000. Warren and his staff ultimately agreed to host a big millennium bash that would be open to those who used to live and work at the Ranch. The real display of commitment by Warren and his staff however, was the decision to pay for the whole thing! This would be accomplished by investing a portion of their tip money into a dedicated mutual fund account, which started with nothing more than a \$250 initial investment, followed by \$100 monthly investments thereafter. The fund grew to the point that every single bed, every meal, and every mule for two consecutive nights was reserved and paid for in full for those ex-Ranchers who wanted to celebrate the millennium at the bottom of the Grand Canyon. (By the way, the Ranch currently costs about \$6,000 per night to completely charter).

And so the reunion became a reality. Warren sent his first “newsletter” in April, 1996 asking those who received it if they knew the whereabouts of any “lost” members of the family. Eventually about 130 ex-Ranchers were located, with the majority of them having worked at the Ranch from the early 1970s onward. Perhaps many of the real old-timers were just too far removed from the experience to be located but Warren also suggested that a big change may have occurred in what kind of person worked at the Ranch prior to the 1970s. He wondered if perhaps before that time employment at the Ranch was considered undesirable or even a hardship. This completely changed in the early 1970s when outdoor sports were popularized and the opportunity to live and work inside the Grand Canyon became a highly sought after option for recent graduates of the late sixties college scene.

In any case, close to half of those contacted by the Ranch made it down for the millennium. The reunion had the air of a larger-than-life event. In

fact, it seemed as if the millennium became secondary to the camaraderie and sense of history that was all too evident as the real reason for coming back to the Ranch.

Golden leaves could still be found high in Phantom’s cottonwood trees, but just five hours into the new millennium a fresh snow started to fall in the Canyon as low as the Muav Limestone. It was the first moisture Arizona had seen since September 22 and was not even visible on the radar of any forecasts for the millennium weekend. This led everyone to agree that the storm must have been the work of Vishnu or Zoroaster, who obviously were greatly placated by the presence of such renown personalities, and tried to keep everyone inside Grand Canyon once and for all. No one would have minded and the welcomed moisture boded well for the new millennium.

It became evident to all attendees at the Millennium Reunion that the Phantom Ranch experience is unique and that it continues to positively influence the ex-Ranchers in their present lives. They agreed that the experience was profound and transcends time. Skills that were learned here years ago continue to be used in diverse places.

As the many personalities made their way back up to “outer space”, the current Ranch staff gradually settled back into their “normal routine”. I was amazed at how little had changed in the overall character of Phantom Ranch employees since the day I stumbled into this little slice of heaven 25 years ago. Exactly as it was then, there was talk in the bunkhouse late at night of the Colorado River, Ribbon Falls, and all things Grand Canyon.

Phantom Ranch is indeed a very special place. It combines both the raw and rugged beauty of the Grand Canyon with a modicum of 20th (now 21st) century amenities such as good food, a hot shower, and most important—family. No one is aware yet of any plans for a reunion during the next change of millennium but two things are for sure—the mutual fund account for that one will grow quite large and the Grand Canyon will still be a great place to grow a family.

Wayne Ranney

...I took the upper half in 1950 and 1951, the lower half in 1952. And then the whole river, I think it was, in 1954. Then when Jim and Bob Rigg built these ChrisCraft lake boats—kit boats—designed for sporting on lakes and rivers, they called me up and said, “We’ve just built a couple of boats. We’re gonna go through the Grand Canyon, do you want to come?” I said, “Bob, do you really think you can make it?” He said, “Well, we’re gonna give it a good try, man.” I said, “Alright, I’ll take a chance.” He said, “All the rest of the old boat people are going, like various of our friends who were with us in previous years: John Mull and Evie Mull from Virginia—people like that.” I helped to bring one of the boats down to Lees Ferry and launched it. We launched both of the boats there. They’d never been in the water before—they’d never even tested them out. We made an upstream run into Glen Canyon to pick up Frank Wright, who was coming down on one of his San Juan trips. Frank said, “Sure, I’ll get aboard.” So we picked him up. He left his trip. We picked him up in the ChrisCraft, started through and went through in about three days, maybe four. We were much impressed with the boat, it rode like a cork through the waves. We had no trouble, except we broke a rudder and bent a prop. But let me tell you, it was the skill of the boatmen who got us through so well. They knew the rapids and how to run them, and that was a really fun trip.... Getting with a bunch of people like that—I mean, I felt they were friends, I felt great, and I felt safe. So the following year—maybe it was two years later—Jim said, “I’ve got a crew together, I’ve got passengers together for another trip through the Canyon.” “Alright, I’ll go with you.” And we took the two ChrisCrafts through that time. Then he turned around and went back to Lees Ferry. We had a group of scientists that time: Buggy, whom we met along the river, an ornithologist and archaeologist—two or three others like that. Made it in about ten days, studying various things along the way, and that was fun—something like this trip. Then my wife wanted to go, and in 1967 we went with Don Harris, Jack Brennan, two rubber boats. Had a fine trip with a bunch of people from Tucson—a great trip. And in 1968, the year before the Powell Centennial, Eddie McKee from Denver called up and said, “We’re making a film for the Powell Centennial, a little story of Powell’s trip. Would you like to be one of the photographers?” and I said “Sure.” So in order to get pictures in the Canyon, I joined up with Gene Shoemaker and his crew and four or five [army ten-man] rubber boats...



But that was a fun trip. I like working trips. Pleasure trips are fun too, but I also like something with an objective, and this trip has it, that trip had it. So my last trip was in 1968, shooting Powell pictures.

Edward Tatnall Nichols is 89 now. We recorded this interview in 1994, on his last Grand Canyon trip: the same one that Gene Shoemaker, Lois Jotter Cutter, Buckethead Jones, Kent Frost, the Nevills sisters, Martin Litton, the Crosses, the Marstons, and so many others were on. It was an illustrious bunch, and a great time was had by all. One thing made Tad stand out... the whole deal had been his idea to begin with.

Tad was buddies with Diane Boyer, who was married to Kenton Grua then, and Tad told Kenton he really wanted to go down the river again but not just to go, he wanted to do something useful. Kenton got Bob Webb, the photo-match guy, on the case. Bob cooked up a scheme to get a bunch of oldtimers

who knew the Canyon before the dams down there and make a comparison, then handed the details off to Diane and next thing we knew the trip was off and running. It was typical of Tad that it wouldn't work just to go—there had to be a product involved.

Tad has reappeared on the radar screen again these days with—again thanks to the help of Diane Boyer and some other truly talented folk—the publication of a stunning book of photographs and journal excerpts devoted to the late Glen Canyon.

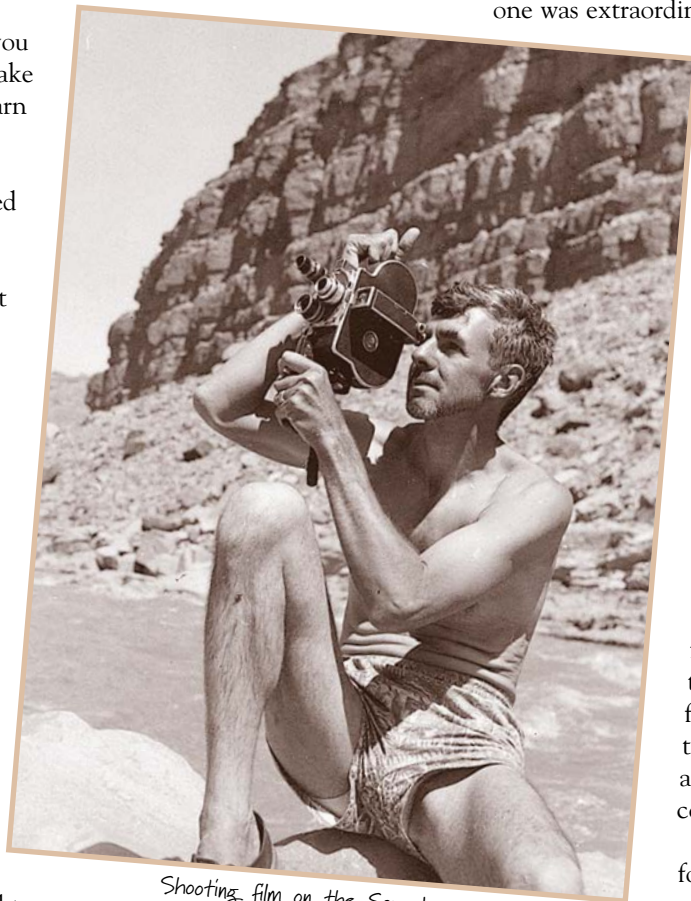
I grew up in New England, Cambridge, Massachusetts. It's a nice place to be brought up, nice surroundings. I liked it. The winters didn't like me, or rather, I didn't like the winters, and I was sick all the time—bronchitis and asthma. So in 1931, my folks sent me out to Arizona to a boys ranch school—not a corrective school, but just a school where boys had horses. Your own horse, you learned to pack mules, make camping trips and just learn the outdoors. We studied geology and archaeology and my whole life changed coming to Arizona from Boston. I picked up an interest in life, an interest in many subjects which I didn't have back there. I date my life as starting when I came to Arizona. The early years were just not so pleasant.

Anyway, I graduated from the University of Arizona in geology and archaeology. And when I was in the Geology Department as a student, I noticed that the geology textbooks' illustrations weren't very clear, not very good. And having had a study course in photography, I decided to see if I could do better than that. Having a knowledge of what the geology textbooks wanted, I set out to make photographs for them, and it turned out to be very successful, and I'm still getting orders from textbooks for photographs of geological subjects. And one thing

led to another, and I got an experience in photography during World War II as a cameraman for the Air Force. We were making training films.

After the war, I started in making films for myself on Indian life of the Southwest, such as how to weave a Navajo rug, how to weave an Apache basket—making films like that. That led to a job with the US Indian Service in which we were making films for health education for the Indians of the Southwest [on] tuberculosis, trichoma, which was like that...

That first trip with Frank Wright down San Juan River and into Glen Canyon, I was so intrigued with Glen Canyon and the beauty of it, that for the next at least seven or eight years, I borrowed, begged, or stole a boat of some kind, and almost every summer went down through Glen Canyon, each year exploring a different side canyon. Each one was different and each one was extraordinary. I had just never really thought



Shooting film on the San Juan.

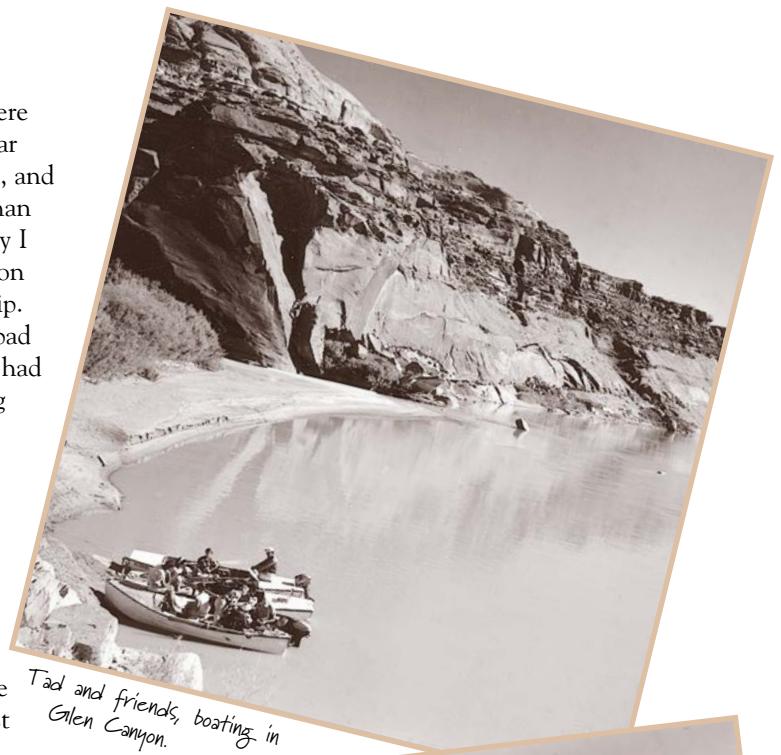
such a place in the world existed. We took as many photographs as we could, we took a lot of color stereo pictures, which turned out to be invaluable and simply marvelous, and you look at those now and it almost brings tears to your eyes to see this stuff. And even when the lake started to fill up, we got a power boat and went in every place that we could, where we had not been able to get very far in previous years along the river. So we got added footage, added pictures. I took no movies, just black and white still prints and color slides.

I was so busy with movies for Frank Wright in the years 1951 and 1952, that I didn't have too much chance to enjoy the Canyon.

This trip, I sat back and really looked and just soaked the place up. I've enjoyed it immensely, just watching these beautiful rock formations come by. Almost mind-blowing, these cliffs: tier after tier and buttresses

and terraces like the old Inca terraces in Peru where they would make agricultural terraces. I saw similar ones down here. This is grand, this is magnificent, and I've been able to enjoy the country much more than I ever have on any other trip before. So that's why I appreciate this so much, and all the great people on it..... It's a real privilege to come along on this trip.

I wanted to go on this so badly. I'd had some bad asthma, which has recurred. For years and years I had none, but there were certain pollens or something in Tucson that triggered it off again. Plus the hot weather in Tucson, mornings—you had to get up and walk at 5:30 or else it was too damned hot to walk otherwise. So I didn't get in enough exercise for this trip. Really, I should have gotten up in the mountains and done some hiking. And that's why I was a bit out of shape when we started. But I'm getting back in shape now, though, and enjoying it much more, thanks to the help. Everybody has helped me on this trip—I just can't believe it! I wish I could give it.... They're wonderful!



Tad and friends, boating in Glen Canyon.

...As I say, in his 1951 and 1952 trips in cataract boats, Frank Wright and Jim wanted a film that they could use to publicize the trips and show to audiences during the winter. There again, I had to do filming. So I never made any observations of the rapids themselves. I wasn't really interested, that wasn't my focus. But I do remember some of the sand banks, some of the places we camped. And I took still pictures along with the movies, so the only thing I really could contribute on this trip, not having any memory of exactly how the rapids looked, was the conditions of where we camped. That seems to be all that I can recall...

The main change is the lack of beautiful sandbars. The one there at Elves Chasm, when we stopped in 1967, we had two big boats, ten, twelve, maybe fifteen people. Got them all spread out there on that bar, even downriver a ways. Now there's no sand there even for—you can't even camp there. Changes like that.

Tapeats Creek had a much bigger bar. I think, to me, I see that [loss of sandbars] as the principal change...



Camping on the river—the way it used to be.
Left to right: Bob Rigg, John Harper, Sue Seeley, Frank Wright, Tad Nichols

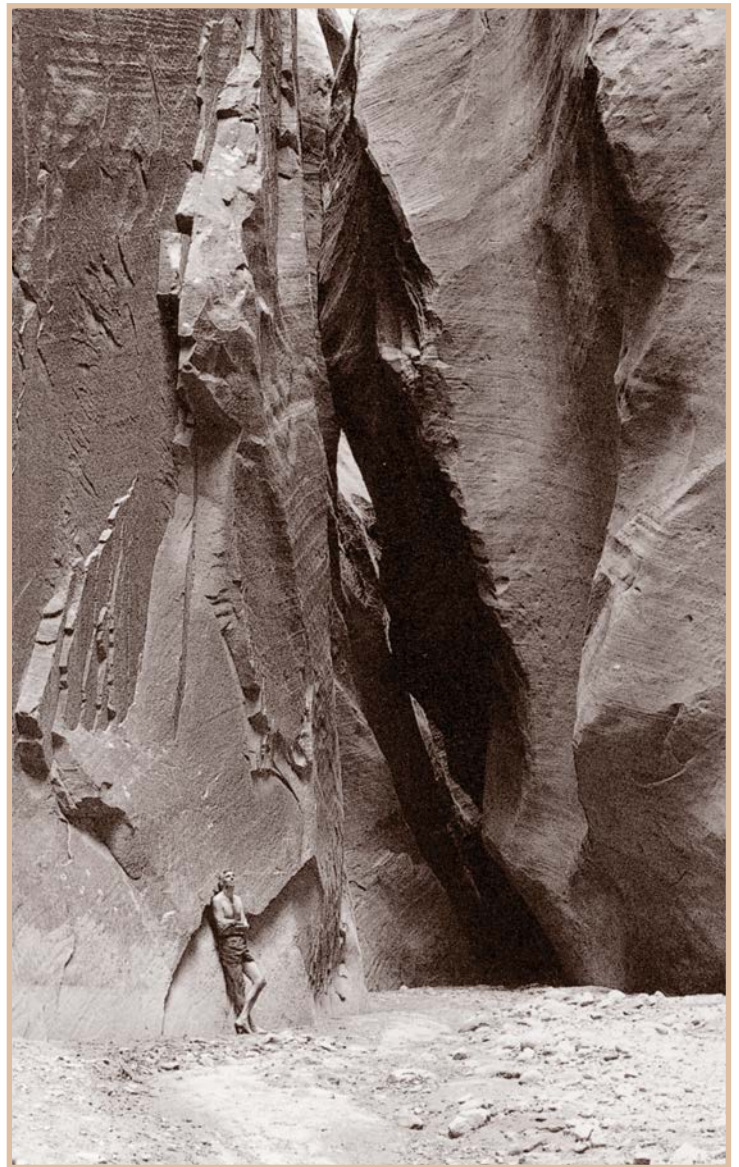
I have some [photographic evidence of all that], which I haven't given to Bob Webb yet. The ones we took at Elves Chasm, people all camped out along the beach there. And some others which I found before I came on the trip. My filing system was not the best. When I visited Ansel Adams one time in California—I took his photographic workshop—he invited me up to his house, and he went into a closet, looking for some negatives, and he came out with a

shoebox. And here he had negatives in a shoebox. I said, "Well, I feel right at home (chuckles), 'cause I sure do [the same thing] myself." And that's part of me—I'm disorganized, I'm not really organized like I should be at home. You know, you have too much to do, you haven't got time to file it properly and label it. Just that way—that's my nature, I guess. I'm trying to reform, I may do better from now on. So I haven't taken many pictures on this trip—I've enjoyed it.

No, I wasn't involved in the politics [of Glen Canyon Dam]. I kept track of it to a certain extent. At the time there was quite a controversy over building a dam. And it would flood out Dinosaur National Park. You're flooding out an existing park. And that, to me, and to a lot of people, of course, was unthinkable and tragic destruction. And the fight over the Dinosaur resulted in crashing the bill to build a dam that would flood Dinosaur. [But] the momentum for dam building was growing and growing. Reclamation, of course, was pushing it. Reclamation had to stay in business, their business of building dams. We gained Dinosaur Park, but we lost Glen Canyon, and Glen Canyon was a dozen Dinosaurs. The most unique place I've ever seen, and probably the most unique place in the world, and if it had been any place else, it would have been saved and been a monument or a park. But the stupidity...I won't say the stupidity of people, I'll say just a lack of knowledge, and the greediness of the Bureau of Reclamation to build a dam as high as they possibly could, which resulted in the flooding of an existing national monument, which was Rainbow Bridge. And if they hadn't been so greedy, they could have kept the dam down twenty feet. What's twenty feet in 800?! Kept the water out of Rainbow Bridge. I think that alone was inexcusable.

Why was there such a thrust? Why did the building of the dams go over so well then? Why was it so acceptable?

To tell you the truth, I don't know, really, why it was so acceptable, but it just suddenly seemed that...I mean, to me, it just seemed to suddenly happen, quickly, without much discussion, without much information that the public could react upon. And possibly because I was traveling overseas at that time, I couldn't follow the process of what happened. When we got back from some trip, all of a sudden the Glen Canyon Dam Bill had been signed. I don't think there was enough opposition to it. The opposition wasn't strong enough, not enough people were behind it, and as Brower said, it was a place that few people knew, and who cared? They were building another dam.



Tad Nichols in Dungeon Canyon, one of the photographs in his book, *Glen Canyon: Images of a Lost World*.

They didn't realize what they were losing. I couldn't do anything about it, very few people could. There were only a handful of people at that time who really had gone through there, knew about it. They knew the beauty, but they couldn't speak up. Don't get me started on this. I don't know any more than that...

But I think the public opinion now is such that the Bureau of Reclamation couldn't get away with building dams in Glen and Grand Canyons, or possibly anyplace else that would flood out anything significant. I don't think today it could be done. I think at that time, there wasn't enough public sentiment, and people who knew very much about what was going to happen. That's just a real amateur's viewpoint, my viewpoint, from a person who didn't follow it too closely. So all of a sudden, the

thing happened. I felt pretty bad about it, along with a lot of other people. But I decided that as long as they were building it, I was going to see as much as I could before the lake filled up. And I've had some enjoyable times on the lake as the lake was filling. I have to admit that. I had my own boat and went everywhere each year. Now I don't go back, because there's nothing more to see. Places like Cathedral of the Desert, Cathedral Canyon, Twilight Canyon—one of the biggest amphitheaters in there you could possibly imagine, that would seat thousands of people. It even had a podium where you could put a whole orchestra in this place. There were many spots in Glen Canyon, that if alone had been any place else, would have been some kind of a preserved monument—many of them. Glen Canyon had many. But that's my feeling, that's what I saw. I don't know really much more. I'm not politically oriented on this.



Jim Rigg at the oars, Edwon and Barbara McKee the back

Gosh, I'd love to hear about those ChrisCraft trips. You know, Katie Lee talks about you a lot. I wish we had time to visit about that. You said they built those boats?

Yes, they were kit boats. And since the Rigg boys can do anything, in my opinion.... Jim Rigg was a natural born airplane pilot. He had the same natural reactions when he was a boatman. And when we caught a piece of driftwood in the propeller at the head of the rapid, I didn't know what had happened. The engine just suddenly stopped. We were a couple hundred yards from the head of a rapid. Before I knew it, Jim was over the back of the boat, in the water. He removed the piece of driftwood that had jammed in the propeller, and he was back on board just as we hit the head of the rapid and went through beautifully. He was that kind of a person. And he loved the Canyon so much. I have a movie of him, standing up in the cockpit, one foot on the steering

wheel, steering with his foot, holding onto the windshield, singing to the top of his voice as we went down through some of the rapids. He was just with it. You could see his enjoyment in what he was doing. (laughs) I think I can remember some of the songs he was singing...

One, I think, was a religious hymn. I'm trying to remember it right now, but I can't quite do it. There was one that was called "With Arms Wide Open, Lord, Be With Us"... or something like that..."As We Go Along". I'll think of it in a minute. Anyhow, he had a beautiful voice and he liked to sing. Jim and Bob and their brother Jack, who was with us on that first ChrisCraft run, they sang the Nevills river song, beautifully together, the three of them. And the tune, somebody told me what the tune was. I've forgotten. It's a western

tune...

Ghost Riders in the Sky, that's it. I don't know who composed the words, but that song just seemed to fit the canyons. And I remember they sang it at the dedication of the plaque to Norm and Doris [Nevills]. There at the bridge in Marble Canyon. Barry Goldwater dedicated the plaque. Frank Masland was down there to comfort the girls. The boys sang that song there, and it just brought tears to your eyes, it was just so beautiful. I don't remember what year that was, but I have a photograph of it. Little things like that I remember.

Yeah, Joanie said that that brought tears to their eyes too.

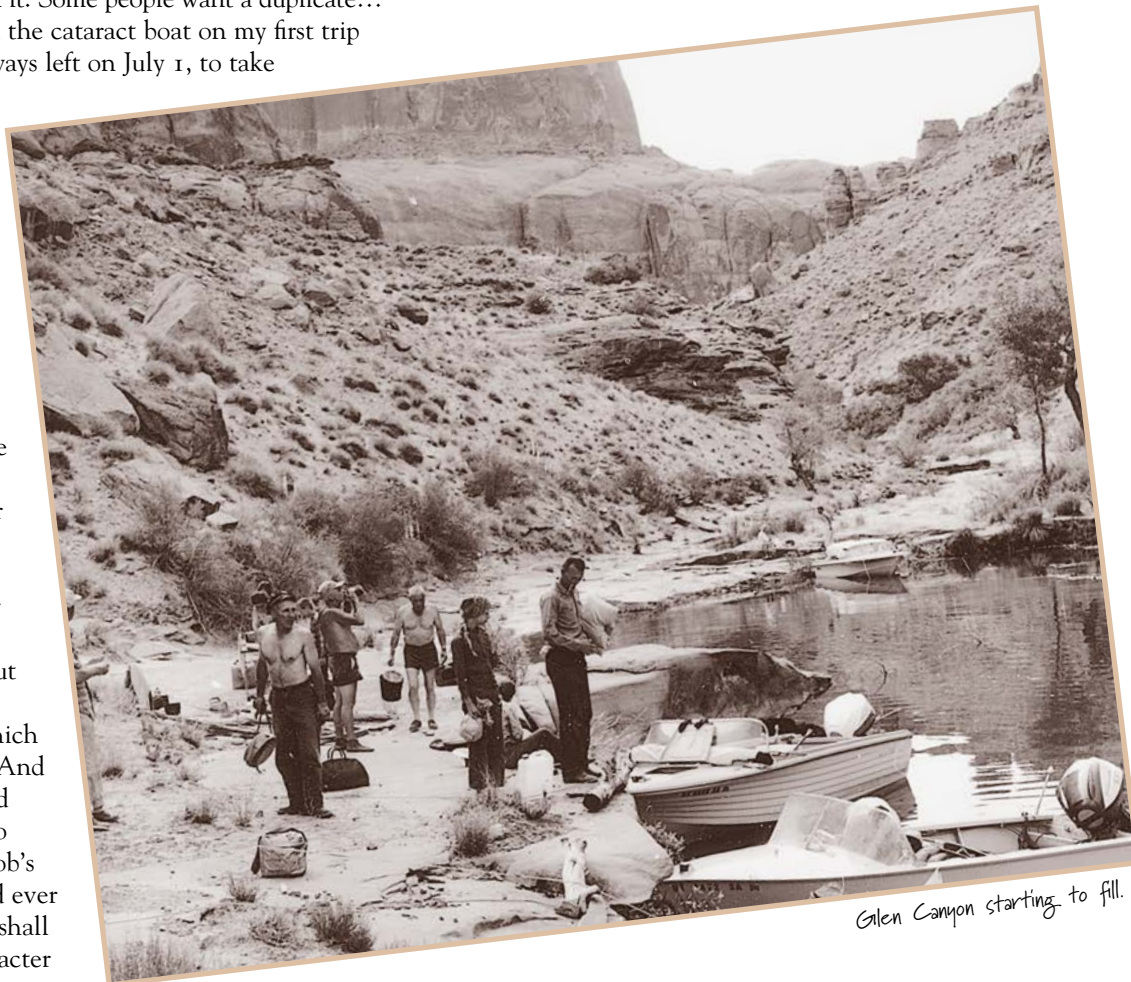
Oh yeah, they were really sobbing. Fisheyes Masland was comforting them, and other people. It was quite an emotional experience.

And you have movies of Jim Rigg standing up and singing?

I have, but I didn't have time to get 'em together. But I want to assemble—I took one whole film of the ChrisCraft run, as much as I could. Then we have a whole film on the upper half, 1951, which I was taking for Mexican Hat Expeditions. Then we filmed some on the lower half, but I don't know how much footage I've

got on that. But I wanted to get those two together, at least, and get it on tape so that Brother Webb could do what he wants to with it. Some people want a duplicate...

I rode with Bob in the cataract boat on my first trip in 1951. The trips always left on July 1, to take advantage of spring runoff. And Frank Wright, Jim, and Pat Reilly were the other boatmen. They told me I'd like to ride with Bob, and that turned out very well. He sort of followed, in a way, in his big brother's footsteps. He once told me, "I've learned so much from Brother Jim. He taught me to fly a plane, he taught me everything I knew about the river, he taught me things about life, philosophy, and subjects in general which have benefitted me." And he just adored Jim and they both got along so well together. And Bob's been a life-long friend ever since. He wasn't the, shall we say, outgoing character that Jim was, but he was a little more quiet but just as capable, I'm sure. And he's turned out to be a very good pal for me. And I remember him, I remember Jim with him. I keep telling Bob I miss Jim so much. He says, "Well how about me? Nobody misses him more than I do." Jim was such a wonderful character, so capable in everything. And I think Bob is too. The whole bunch was that way. Frank Wright was a good river man. He could do anything, repair anything, make anything. All these guys were so extraordinarily resourceful. You just counted on them of being able to do anything, in case something went wrong. And they were there and they knew how to handle it. That's a bunch of guys.... And we respect them very highly. I respect Jim, Bob, Frank—the whole bunch. How could you find any better guys?



Glen Canyon starting to fill.



*Tad and Ted Melis working on the Old-Timers' trip.
NAU Cline Library, SCA, USGS Old-Timers', NAU.PH.94.37.61.*

All Photos in this story were taken by Tad Nichols

Pediocactus in Peril

DANIELA ROTH of Navajo Fish and Wildlife recruited me in mid-April for a one-day trip to Jackass Point to monitor *Pediocactus*. I had heard about these peculiar, evasive plants and so jumped at the chance to become familiar with them. A fast-approaching low pressure produced whitecaps in the long, slow flats above Badger Rapid; the kind of weather that makes you take notice. We did. Even before we had to chase data sheets all over the desert. The dogs enjoyed that!

We were surveying *Pediocactus Bradyi*, a cactus so small that we spent most of the time on our hands and knees looking...looking. Just the very top of them pokes out from the rocky soils they are rooted in. The part you can see varies from 0.5 to 3.5 cm in diameter, most often in the 1–2 cm range. You would love to see some *Pediocactus*. But it'll take some perseverance and luck. For one thing they are damned hard to find even when you know where to look. And they have the peculiar habit of retreating underground when it gets hot and dry, or cold, which is much of the time at Marble Canyon.

Species of *Pediocactus* tend to be endemics, growing in a very limited range. *Pediocactus Bradyi* ranges from along the Marble Canyon rim downstream of Navajo Bridge over to House Rock Valley. So they are rare; a federally listed Threatened Species. Any soil disturbance wreaks havoc on them. That's why botanists have an interest in monitoring them to see how they are doing. Is there much recruitment of new individuals? How does the rate of recruitment compare to the death rate? How much are they impacted by human activities? And so on.

Navajo Fish and Wildlife set up monitoring plots at Jackass Overlook in 1991. The plots vary in size from seven to 45 square meters. They are right next to the

road used by folks that want to view Badger Rapid from above, usually with a few beers. I'm sure that folks occasionally drive over the plots without knowing the plots or the sensitive cacti are there. The plots are marked out with rebar stakes that are hard to find. We found cactus by triangulation from the rebar markers. The data collection isn't too exciting. But the scenery is fantastic and they are damned cute little buggers.

A film was shot at Jackass Overlook in 1994 and *Pediocactus* numbers haven't recovered from the impacts of that episode yet. The road was fenced off after filming to reduce vehicular impact. But the closure sign says nothing of why the area is closed. So, of course the fence is down and it is easy to drive right up to the edge of Jackass Overlook again. Which wouldn't be a problem except that the cactus are very site-specific in their needs and the best place for them to live is right where folks want to park and get out of their cars and then turn around to leave the area. They are survival-challenged as it is. They have a hard time reproducing since most of them don't flower. And the ones

that do often abort, or if they do manage to set fruit, the fruit are often eaten by bugs or mice. I was tempted to try one myself, but Daniela would have thrown me over the cliff.

Pediocactus Bradyi will have a much better shot at survival if we choose to walk the extra couple hundred yards out to the Overlook. After scoping out Badger Rapid and Marble Canyon, take a look down around your feet. *Pediocactus* are bizarre. If Alice's trip in Wonderland had been a Southwestern trip, these diminutive cacti would have had a major role.

Glenn Rink



Grand Canyon Youth Update

Exciting news from grand canyon youth (gcy). Things are really starting to move at gcy. We have five trips going out this spring. Thanks to generous grants, outfitter, business and community support, school participation and hard-working volunteers, we are providing the opportunity for 80 to 100 kids to experience a river trip! That's what it's about—getting the next generation on the river and in the canyons.

Seventh and Eighth graders from Mount Elden Middle School are going on a three and a half-day San Juan trip with Arizona Raft Adventures and Wild River Expeditions. Flagstaff Middle School kids are doing a five-day Deso-Gray trip through Colorado River and Trail Expeditions. Teenagers from Coconino High are going on a three-day, geology focused San Juan trip with Adventure Discovery. A group of sixteen students from Flagstaff and Salt Lake City high schools will do a fourteen-day Grand Canyon trip run through Tour West. The outfitters have been wonderful with providing us screaming deals on trip prices.

The kids have worked hard to go on these trips. They are paying half the trip cost with money they've earned through jobs and fundraisers. They have participated in community service projects. They have researched and will present an educational project on the river to fellow students and to the community after the trip. On the river, they'll do everything from the groover to cooking and learning to run their own boats.

It has been a huge year for gcy. We've established a Board of Directors and By-laws and are on our way to having our own 501(c)(3) tax-deductible, non-profit status. We are indebted to GCRG for letting us use their tax-deductible status the last few years! We have received over \$20,000 in grants this year from Flagstaff Community Foundation, Grand Canyon Conservation Fund, Arizona Advisory Council for Environmental

Education, as well as many generous individuals and businesses.

Our Mission is 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. The basics of the program are that the kids earn half

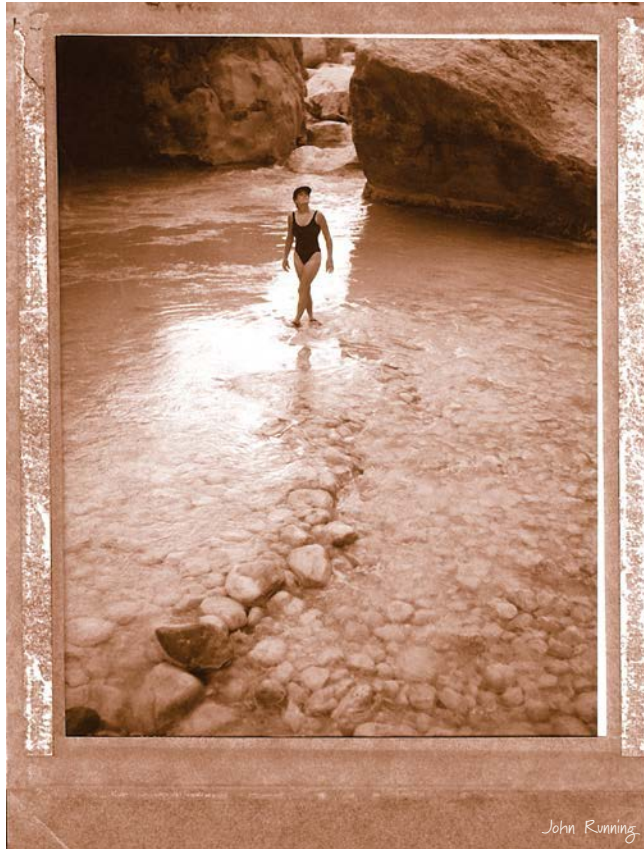
the cost of their trip, we provide the other half. The kids do community service, educational projects and full participation on the river.

How can you help? Help us spread the word about this great organization! Tell your passengers about Grand Canyon Youth. We have our successful "Adopt-a-Youth" program in place where people can sponsor a youth to provide them this unique opportunity. This is a great place for your passengers to give money to help provide scholarships for kids who need financial aid. A business owner can join our "Business Sponsor" program where the money they donate goes to kids who can either work for them or do extra community service in exchange

for the aid. We're looking forward to getting even more trips out in 2001. The money we raise over the summer, in part, dictates how many trips we can do next year. We'll drop off brochures at the different companies that you can pass out. Do you know an innovative and enthusiastic teacher? Have them contact us. If you want to get involved on any level, give us a call at (520) 773-7921. (Our office is staffed by volunteers, mainly boaters during the summer, so please be patient—we will return your call when we're back from the river.)

Thanks again to GCRG for giving us a home and taking us under their wing! Thanks to everyone for your support and enthusiasm!

Tillie Klearman



Let the Camelthorn Grow!

THE RESULTS FROM AN UPCOMING Environmental Assessment (EA) will determine the fate of countless tamarisk this summer. The plan is to remove the tamarisk from ten acres around Lees Ferry and plant willows and cottonwoods in their place, creating a lovely vision of a cozy put-in with lots of excellent shade. Also included in the three year re-vegetation program (funded by a proposed \$370,000 grant from the Arizona Water Protection Fund) is a project to remove the tamarisk from 63 Grand Canyon tributaries. The Lees Ferry project will determine the feasibility of restoring a dozen areas along the Colorado River corridor through Grand Canyon to a pre-dam cottonwood/willow forest condition. Greg Woodall eloquently discussed the project with GTS participants at mile 145, which coincided with an inspirational down-river view of the Olo Canyon cottonwood at the river's edge, shining in the beautiful morning light streaming through the side canyon.

Tamarisk have been studied extensively since their migration to the Colorado Plateau many years after their introduction to the US in the 1800s. They were even promoted in some areas of the West in the 1930s to provide erosion control for a landscape already stressed by wasteful agricultural practices. Though some biologists consider tamarisk naturalized, they are defined as non-native in the Grand Canyon. I recall displaying my own ignorance of the issues of non-native biota during the Fall 1999 GCRG meeting in Kanab. After a speaker explained the issues of eradicating camelthorn in the Canyon and the unpleasant mess they create for camping at beaches, I asked him if there had been any camelthorn habitat studies of insects and birds. After hearing that habitat wasn't the main issue, I wondered aloud if possibly plants like the camelthorn could offer habitat to species not seen since the pre-dam era and finished with the statement, "perhaps we should trust Mother Nature—she knows best." Needless to say, my comments were not considered further, and the discussion moved to the more practical aspects of non-native plant removal.

It seems impossible for us to fully understand the complexity of the Grand Canyon ecosystem. We are reminded of this by Aldo Leopold's discussion of the "Land Pyramid" from *A Sand County Almanac*:

At what point will Government conservation, like the Mastodon, be handicapped by its own dimensions?"

Aldo Leopold, *A Sand County Almanac*

"Plants absorb energy from the sun. The energy flows through a circuit called the biota, which is represented by a pyramid consisting of layers. The bottom layer is the soil. A plant layer rests on the soil, an insect layer on the plants, a bird and rodent layer on the insects, and so on up through various animal groups to the apex layer, which consists of the larger carnivores."

"Each successive layer depends on those below it for food and often for other services, and each in turn furnishes food and services to those above. Proceeding upward, each successive layer decreases in numerical abundance. Thus, for every carnivore, there are hundreds of his prey, thousands of their prey, millions of insects, uncountable plants."

"The lines of dependency for food and other services are called food chains. The pyramid is a tangle of chains so complex as to seem disorderly, yet the stability of the system proves to be a highly organized structure. Its functioning depends on the cooperation and competition of its diverse parts."

Reinforcing Leopold's ideas of the complexity of nature is the case of the endangered willow flycatchers, which have found suitable nesting grounds in tamarisk. As published in the *Southwest Naturalist* (June 1989), Bryan Brown and Michael Trosset found that tamarisk composed a substantial part of the nesting habitat used by the willow flycatchers, despite the range of nesting habitat (including willows) available to them but presently unoccupied. Steve Carothers writes further on the insect habitat tamarisk offers: "...the actual biomass of insect productivity can be greater on the tamarisk than on the willow. Willows may have a richer, more diverse insect fauna, but tamarisk can produce spectacular outbreaks of leafhoppers." (*The Colorado River Through Grand Canyon*, 1991, p.141) With all the complexity in the changing ecosystem, it seems impossible to understand the connection of all the biota in the Grand Canyon. With this in mind, could our selective horticultural efforts now create continued future management obligations, similar to how the naive Forest Service fire policies of the early 20th century have necessitated ongoing vigilant fire maintenance? Allowing natural processes to prevail (such as allowing lightning fires to take their course) in a place like the North Rim in

its humanly altered state could result in wholesale (and unnatural) devastation of the region. Just as a forest evolves with essential “bridge” species taking root between stages, perhaps non-native plants in the Grand Canyon will provide a stable ecological niche for important plant, insect, and animal species in the future.

The Wilderness Act defines wilderness as a place which is protected and managed so as to preserve its natural conditions, but it is possible to interpret the term “natural conditions” as allowing natural processes to prevail. The effects of the Glen Canyon Dam are becoming understood, but how the ecosystem continues to respond to the radical change in its conditions can only be studied and observed. Allowing it to find its own equilibrium without additional intervention offers us a beautiful opportunity see Mother Nature’s natural adaptive processes taking place rapidly. It offers insight on the process of evolution at its finest. Let us enjoy the dance of life in the Grand Canyon as it evolves naturally. Affect it as little as possible. We can’t improve on Mother Nature. Let the tamarisk, ravenna grass, Russian olive, and even the prickly camelthorn, grow!


Information on the upcoming EA and the dates of the thirty-day comment period can be obtained by the Grand Canyon revegetation crew at (520) 638-7857, (POB 129, Grand Canyon, AZ 86023) or the Grand Canyon Wildlands Council at (520) 556-9306.

John Middendorf

New BQR Deadlines

Hey you all! Thanks for all the wonderful input for the BQR. Keep it coming. We look forward to getting stuff from all of you.

The deadline for the next BQR is August 1, 2000. After that the deadlines will be November 1, February 1, May 1, and back to August 1. You get the idea. Please make a note of it and try to be prompt. Also, let us know if you have any input or suggestions. We would love to hear from you.

the editors 

Grand Canyon Youth Clothing Drive

Hey there boatmen, outfitters, and fellow river-runners! Grand Canyon Youth (gcy) needs river-related clothes. These clothes (raingear, polypro, fleece, etc.) can be “used.” We’re not looking for anything fancy. All clothing will stay in the program for future trips.

As of April 3, 2000 we have received some really nice things. Patagonia has made a delightful donation of raingear. Our local boaters here in Flagstaff have given us hats, fleece jackets, polypro, old sweaters, high school jackets, and quick drying shorts. *But*, we still have aways to go. *Please* think about Grand Canyon Youth when you’re doing your “spring cleaning.”

Upcoming youth trips include middle-school and high-school students from diverse backgrounds. Our upcoming trips are as follows:

- Hualapai Youth March 21–April 2, part of a gcmrc Cultural Trip
- San Juan April 20–23 (40 kids on a double launch) and April 28–May 1 (15 kids)
- Desolation/Gray May 23–28 (16–20 kids)
- Grand Canyon June 1–14 (16–20 kids)

If you have anything you’d like to donate to this really cool program please call Lynn R. at (520) 773-9128 or gcy at (520) 773-7921. Our office is at 515 W. Birch.

On behalf of Grand Canyon Youth and all the kids in the future who might be wearing the clothes you donated, *a big thank you!* Thanks for helping kids love the rivers and the canyons!

Lynn Roeder



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 505 N. Beaver St. Flagstaff	779-0624	720 S. River Rd. Suite A-114, St. George, UT 84790	
The Summit Boating equipment	774-0724	Marble Canyon Lodge Lodging and trading post merchandise, Marble Canyon, AZ	355-2225
Chums/Hellowear Chums and Hello clothing. Call Lori for catalog	800/323-3707	Cliff Dwellers Lodge, AZ Lodging and store merchandise (excluding tobacco, alcohol & gas)	355-2228
Mountain Sports River related items 1800 S. Milton Rd. Flagstaff	779-5156	Mary Ellen Arndorfer, CPA Taxes 230 Buffalo Trail, Flagstaff, AZ 86001	525-2585
Aspen Sports Outdoor gear 15 N San Francisco St, Flagstaff	779-1935	Trebon & Fine Attorneys at law 308 N. Agassiz, Flagstaff	779-1713
Teva Sport Sandals and Clothing	779-5938	Laughing Bird Adventures Sea kayak tours Box 332, Olga. WA 98279.	503/621-1167
Sunrise Leather , Paul Harris Birkenstock sandals. Call for catalog.	800/999-2575	North Star Adventures Alaska & Baja trips Box 1724 Flagstaff 86002	800/258-8434
River Rat Raft and Bike Bikes and boats 4053 Pennsylvania Ave. Fair Oaks, CA 95628	916/966-6777	Chimneys Southwest Chimney sweeping 166 N. Gunsmoke Pass, Kanab, UT 84741	801/644-5705
Professional River Outfitters Equip. rentals Box 635 Flagstaff, AZ 86002	779-1512	Rescue Specialists Rescue & 1st Aid Box 224, Leavenworth, WA 98826 www.rescuespec.com	509/548-7875
Canyon R.E.O. River equipment rental Box 3493, Flagstaff, AZ 86003	774-3377	Rubicon Adventures Mobile cpr & 1st aid Box 517, Forestville, CA 95436 rub_cpr@metro.net	707/887-2452
The Dory Connection Dory rental 823 1/2 W. Aspen #4, Flagstaff, AZ 86001	773-1008	Vertical Relief Climbing Center 205 S. San Francisco St., Flagstaff	556-9909
Winter Sun Indian art & herbal medicine 107 N. San Francisco Suite #1, Flagstaff	774-2884	Fretwater Press www.fretwater.com	774-8853
Mountain Angels Trading Co. River jewelry Box 4225, Ketchum, ID 83340 www.mountainangels.com	800/808-9787	Randy Rohrig Casitas by the beach for rent in Rocky Point.	526-5340
Terri Merz, MFT Counselling 1850 East Flamingo Road #137 Las Vegas, NV 89119	702/892-0511	Dr. Mark Falcon Chiropractor 1515 N.Main, Flagstaff	779-2742
Dr. Jim Marzolf, DDS Dentist 1419 N. Beaver Street, Flagstaff, AZ	779-2393	Willow Creek Books Coffee & Outdoor Gear 263 S. 100 E. St., Kanab, UT	801/644-8884
Snook's Chiropractic Baderville, Flagstaff	779-4344	KC Publications Books on National Parks Box 94558, NV 89193-4558. www.kcpublications.com	800/626-9673
Fran Sarena, NCMT, Swedish, Deep Tissue, & Reiki Master	773-1072	Roberta Motter, CPA 316 East Birch Ave., Flagstaff, AZ 86001	774-8078
Five Quail Books—West River books 8540 N Central Ave, #27, Phoenix	602/861-0548	Flagstaff Native Plant & Seed 400 East Butler, Flagstaff, AZ 86001	773-9406
Canyon Books Canyon and River books Box 3207, Flagstaff, AZ 86003	779-0105	High Desert Boatworks Dories & Repairs andy @wileywales.com Durango, CO	970/259-5595
River Gardens Rare Books First editions 720 S. River Rd. Suite a-114, St. George, UT 84790	801/674-1444	Hell's Backbone Grill Restaurant & catering Hwy 12, Box 1397, Boulder, UT 84716 www.boulder-utah.com	435/335-7464
ERA Conley Realty 123 W. Birch Ave., Suite 106, Flagstaff, AZ 86001	774-4100	Boulder Mountain Lodge Hwy 12, Boulder, UT 84716 www.boulder-utah.com	800/556-3446
Design and Sales Publishing Company geology guides www.edu-source.com/fieldguide.html	520/774-2147		
River Art & Mud Gallery River folk art	801/674-1444		

Condor #50

Nautoloid camp. March 21, 2000. The first day of spring and day five of our Namdor trip. It was a beautifully shitty day in the Canyon. It started raining at three AM and never stopped. There was snow all the way down to the Redwall. We took the morning off because it was pouring so hard we couldn't nam. After waiting out two sucker-holes under our Jed-Clampett-goes-boating tarp system, everyone decided to go back to bed. That's when the fun started.

About an hour later, several of us woke up when Gonz came running into camp yelling, "Condor #50 just attacked me! I just got attacked by Condor #50! That ***ing thing just ripped a hole in my tent! Is it too early to start drinking?"

He was visibly upset, and rightly so. Gonz had set up his tent across the drainage from the main camp. After falling back to sleep, a scratching-type noise woke him up. When he opened his eyes he was staring right into the face of Condor #50. Talk about a rude awakening! The scavenger had ripped a hole in the bottom back side of his tent and poked his head and neck inside to have a look—about one foot away from Gonz' head! Gonz screamed, yelled, and flailed about, then got out and chased the ugly brute back to the other side of the river.

People started getting up slowly to find out what all the commotion was about and got to hear the eyewitness account. Gonz was going into about his fifteenth rendition of the tale when ol' #50 decided to revisit the scene

of his crime. He (or she, I'll stick to the male interpretation here) peeled off the cliff across from camp and glided over to Gonz' tent again. Gonz screamed and we all started running up the beach, across the drainage, up the other side and stopped in our tracks. There was Condor #50 about to go back in. This was the first good look any of us had had at this monster, and now there we were, about ten feet away giving each other the "well, *now* what do we do" look. It was the largest, ugliest bird any of us had ever seen—truly a magnificent creature. It stood about three feet tall and had its wings halfway spread out and kind of half-cocked like it was protecting a fresh kill. He looked pretty casual. We hoped he wasn't pissed. Gonz and Steve crept around either side of the tent then started yelling and waving their arms and the beast took off. We built a Condor fence along the tammy opening behind his tent by tying some string across the gap, and hanging a shirt, towel, and some smelly socks across it. By that time the rain had let up enough for us to go to work. After we finished namming the place in, we decided to move on down stream. When Gonz went to break down his camp, his towel was gone from the fence. Condor #50 had struck again.

Matt Kaplinski

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.

\$16 Short sleeved T-shirt Size _____

\$18 Long sleeved T-shirt Size _____

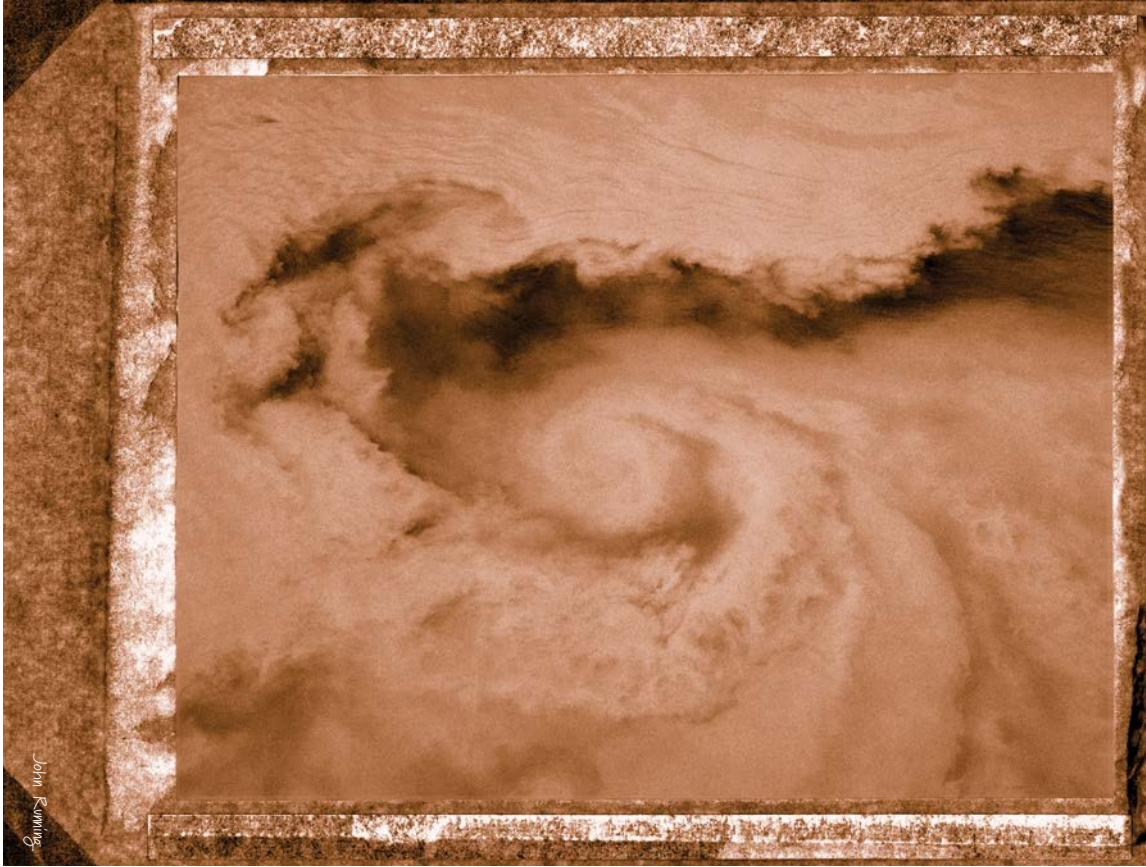
\$24 Wallace Beery shirt Size _____

\$10 Baseball Cap

\$10 Kent Frost Poster (Dugald Bremner photo)

Total enclosed _____

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



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.

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boatman's quarterly review

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