THE GRAND CANYON

Number Two

preserving public access to the Colorado River

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"Swimming The Colorado' Linoleum Cut Collage © Mimi Williams

The Colorado Management Plan

On November 10, 2005, after a process that lasted more than 3 1/2 years, the National Park Service released the Final **Environmental Impact** Statement (FEIS) and Colorado River Management Plan.

The FEIS covers a broad range of considerations: natural resources, cultural resources, visitor use and experience, socioeconomic conditions, park operations and management, impacts on adjacent lands, wilderness character and sustainability and long-term management. The finished product is more than 1000 pages long and 3 inches thick in paper form! In preparing the plan the NPS consulted with other federal and state agencies, with affected Native American tribes and with the general public through public scoping meetings, public comment meetings, stakeholder workshops, and a public comment period. In the approximately four-month period after the publication of the Draft Environmental Impact Statement (DEIS) the NPS received nearly 10,000 comments from and interested citizens organizations. Representatives of GCRRA, supporting the interests of commercial passengers, attended all of the public comment meetings and submitted a lengthy and detailed response to the proposed plan.

In the final plan the NPS stated its commitment to providing a wide variety of visitor experiences: motor and oar powered trips, short and long trips, trips starting and ending at different places in the Canyon via hiking or helicopter exchanges, etc. There are two separate divisions of the plan, one for Lees Ferry to Diamond Creek (River Miles 1-226) and a second from Diamond Creek to Lake Mead (River Miles 226-277) with different regulations applying to each. For the Lees Ferry to Diamond Creek section, the NPS has moved to a launch-based plan which reduces the maximum number of trips launching per day, which hopefully will reduce trip contacts and crowding at frequently visited sites. The plan significantly increases the number of noncommercial launches and user days, but does not decrease the number of commercial passenger user days.

While the FEIS/CRMP does not incorporate all of the elements we advocated, many of our most important concerns were satisfactorily resolved by the plan. Use of motorized rafts for both commercial and non-commercial trips will be permitted, a very important issue for commercial passengers, the majority of whom go by motorized raft. The mixed use (motor and non-motor) season will run from April 1 through September 15 rather than March 1 to August 30 as originally proposed, keeping the very desirable early September weeks available to commercial motorized raft trips. The very problematic all-user registration/adjustable allocation system for commercial and noncommercial passengers which was proposed in the DEIS was eliminated, and a fixed allocation system reinstated. The estimated split between commercial and non-commercial passengers is estimated to be 50/50 for user days and 54/46 for launches.

Although the permit system for noncommercial trips did not directly affect commercial passengers, the wait-list system currently in use has long been a source of complaints from non-commercial boaters and of perceived competition and unfairness between the opportunities available to commercial and non-commercial boaters. Widespread unhappiness with the waitlist, in fact, led to the lawsuit that launched the new (CRMP continuted next page)

CRMP (continued from page one)

management plan process. In a very important component of the FEIS, the NPS addressed this problem by changing to a weighted lottery system for non-commercial permits, by substantially increasing the number of opportunities for non-commercial launches, and by limiting all boaters to one trip per year on the Lees Ferry to Diamond Creek section of the river. We were pleased to see that the Grand Canyon Private Boaters Association has responded positively to these changes.

There were also a few elements of the plan which did not follow our recommendations: maximum allowable trip lengths for commercial and non-commercial trips differ; there will be no special categorical provision for specialty trips such as hiking, painting or photography; the maximum allowable number of persons on commercial trips was reduced and crew will be counted Linda Kahan, GCRRA

in group size; guides will be required to accompany passengers on hiking exchanges.

Overall, we see this plan as a reasonable compromise. Many legal requirements and constraints had to be met and competing sets of values, claims, and desires had to be reconciled. We did not get all of the things that we wanted, but we got many of the most important ones. The plan maintains broad public access to the river corridor through permitting a diversity of commercially outfitted river trips during the traditionally favored boating season. We look forward to many years of great river running when the plan is implemented. A more complete analysis of key aspects of the plan is posted on our website www.gcrra.org.

Canyon Memories - Jim Robinson

The river takes the boat lazily downstream but a distant roar from around the bend hints at what is ahead. One hundred yards downstream, glimpses of crashing waves flicker above the horizon. For a moment it appears as if the river ends, and questions about the sanity of this adventure enter my mind. The guide yells, "Hold on tight", ending the command with an excited war cry. The river picks



up pace with each passing moment as the deafening roar approaches. The glassy green water of the Colorado rolls downstream into small peaks and valleys. The boat swiftly dips down into a deep trough, kicking sharply as it breaks through the first of five waves of increasing size. The next three waves hit forcefully, pounding the raft and the adventure seekers with all of nature's forever. power. Chilly fifty degree water fills the bright yellow boat as it lumbers over the fourth wave. Now the river seizes the virtual wading pool and slides it down deep into the base of the final obstacle of Hermit rapids. Just as the raft begins to climb and rise through the final wave the heavy wall of water crashes down with the force of a

jackhammer. Suddenly it becomes dark and eerie with nothing but the sound of swirling water. The roar vanishes in a flood of a million thoughts and the deafening pounding of my heart. Like my ruined wristwatch, time seems to stop. The river has me in its grasp and as easily as it sucked me in, it spits me back out to swim the rest of the rapid on the surface. Dazed and breathless, I search for the boat, but it is no where in sight. My thoughts turn next to my Grandfather and brother. No sooner than this thought finished, my Grandfather pops up beside me as the river releases its grasp on him. Through the crashing waves I am able to catch a glimpse of the upside down boat with my brother and the river guide on the bottom giving each other a high five. They then turn their attention to my Grandfather and me yelling, "Swim Jim. Swim Bob." Exhausted, and yet excited, I let the lifejacket and the river do the work as I drift downstream to the waiting rafts. I am pulled in by strangers who have no names to match the faces.

In camp that night the strangers soon have names and they are no longer strangers but friends to rely on during this eight day journey. Stretched out on the sleeping bag gazing at the star filled sky framed by the mile high canyon walls, I reflect on the exciting first day. I realize why this magnificent place is described simply but so fittingly, the Grand Canyon. With the million visible stars and the unfathomable size of the rock plateaus, I begin to see how insignificant one person is in the whole picture. I slowly drift into sleep to the immutable sound of the rushing river, the first day becoming a

my dreams

memory and part



Message from GCRRA President

It's hard to believe that barely 16 months have passed since Grand **Canyon River Runners** Association was incorporated and entered the fray of Grand Canyon politics.

The Colorado River Management Plan is nearly finalized as of this writing, and our young organization can say with pride that we had a valid say in the outcome. Huge waters under our bridge, to be sure. This is an appropriate time to reflect on what brought us together, and what ties will bind us into the future.

Can you instantly recall the song of the Canyon Wren? Does a chill run up your spine when you dream about standing in the pool at the base of Deer Creek Falls, an icy mist swirling around you in its own windstorm? Have you gritted your teeth and resisted hysterical laughter as a foraging whiptail lizard crawled across your motionless foot on the way to its lunch? Have you participated in the grandest adventure of your life and realized that you could barely find the

words to describe it to friends back home?

Each of us who has boated in Grand Canyon has experienced something like that. We have been blessed with the chance to visit a land where superlatives run out before the end of day one, and get recycled endlessly until the takeout. Yet none of those superlatives can bring the Canyon to life for someone who has not spent time on the river. What we experience there cannot be translated for them, because they cannot envision what our words cannot adequately describe.

Grand Canyon boaters are part of an exclusive community. The voices of this community are here within the pages of The Grand Canyon River Runner. As you read the stories that other river runners have shared you will recognize your own passage through the canyon. We will take you back for another run at Crystal, another climb up to the patio at Deer Creek, and one more morning that starts with the gentle wake-up call of that elusive little wren.

Welcome back to your canyon.

Mari Carlos, President, GCRRA







A number of Grand Canyon's more colorful rescues have involved two intrepid brothers from Pittsburgh, Pennsylvania—E m e r y and Ellsworth Kolb—who emigrated here at the turn of the last century, established a photography studio that literally hangs over the edge of the South Rim, and then proceeded to get each other

into and out of all manner of hairball adventures in the name of taking good pictures, or scientific advancement, or, in a couple of cases, just messing about in boats.

Initially the Kolb's mainstay was making portraits of hikers and mule parties heading into the Canyon—a daily routine that involved snapping the portrait, running halfway down into the Canyon to develop the plates in the clear water that could only be found at the springs of Indian Gardens, then humping back up the Bright Angel Trail on foot with the finished prints in hand, ready to be sold at the very top to the exhausted tourists immediately after they'd staggered at long last back out of the Canyon.

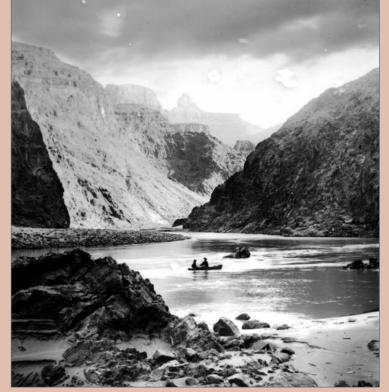
The Kolb brothers' great claim to fame was running the the



Colorado all the way from Wyoming to Mexico in 1911 and emerging with the first motion pictures ever made of the river and the Grand Canyon. That journey alone racked up three or four flips and several pretty good swims, all entailing memorable rescues.

The brothers themselves were a study in contrasts. Ellsworth, the dreamer, was usually the guy who got them into scrapes and Emery, the practical one, typically got them out. Emery was never shy about reminding Ellsworth, or the world, of this fact, either. But every now and again the shoe ended up on the other foot... as the following tale, told in Emery's own words during an oral history recorded by the National Park Service, illustrates.

All photos courtesy of Kolb Photograph Collection, NAU.PH.



From an interview with Emery Kolb, recorded at Kolb studio July 31, 1962.

[Tape number 69 in the NPS archives at the South Rim Visitor

[This] was after our first river trip. My wife and Edith were with me at our finishing room down there and we [Emery, a chemist friend, and a local secretary] had decided to go fishing. I told my wife to have the makings of a fish dinner for 11 o'clock. We went down to the river [near Phantom Ranch].

I had a little steel boat—that broke in two in the middle so you pack half on mules.... We caught about 35 pounds of bonytail. Coming back I told them to walk down the sandbar and I'd run the boat through the little rapids there and land for them below. Chemist said "You'd better leave the fish with us, you might swamp." I said "No, I need that for ballast," and threw it up in the bow of the boat.

I started down and ran this little swift section and went to try to land. But this big whirlpool over there was so strong I couldn't make my landing. A little vortex sucked the boat from under me. I had a corduroy coat and trousers on and boots and no life preserver. This little steel boat had two small air chambers but would just about float.

I held one oar and over and under I would go—the boat just rolled over and over until it got down into the more quiet water then I held onto it as it was going down the river. I saw I was being



carried into the worse rapids below the end of the trail there [at Pipe Creek, just below where the Bright Angel Trail hits the river]. Going down broadside the boat dropped down in a hole that threw me under again and I saw a rock below so I quit the boat and swam for the rock.

I no sooner grabbed the rock when the boat crashed into my back and the one end went down about 3 feet under the water. You can imagine the power of that water. My back was pretty badly hurt. I squeezed out, got on top, started tugging on the boat and the boat broke in two and went on. That left the water come up almost to my knees.

[The water] was gradually rising all day. A tourist walked down the trail at 9 o'clock—this was in the morning this happened—and the boys called across to him. So he came back and just below Indian Garden told the guides bringing the mule party down about it. One guide stayed there all day trying to float logs to me but couldn't make it. And this man tried to call my brother [at Kolb Studio] over the telephone [at Indian Gardens]. The telephone was out. He tried and tried, and finally Ellsworth heard him say "your brother's on a rock in the middle of the river."

So Ellsworth took Bob Fix here, with two life preservers and ropes and a small line. They ran around to the cable, crossed over, then climbed from that side of Phantom Ranch, on the granite, down to where I was. They arrived there just before dark. (To make matters worse my wife and Edith had to come down to see what was going on. And they tried and tried to throw this thin line with rocks out to me—the rocks would land about 15 or 20 feet from me every time.) Finally darkness came on and just through the shimmer of what light there was ... there I saw something coming down the river. It was my brother.

He attached two ropes to him and two life preservers and swam out to the beginning of the rapids, left the men hold the ropes and run down along the side as he was carried into the rapid. He grabbed a rock above me and nearer shore. He threw one life preserver out farther and that was swept down and I got a hold of it.

Well they pulled me in first and it was so dark they couldn't see my brother and they almost pulled him off the rock before he had his rope tied around him. I had made shore or landed about

20 feet I would say, from shore. I thought I would stand there so when they would pull him in I could grab him and keep him from being carried in a whirlpool below. Well he made his footing before I did. It was so dark they couldn't see him and they gave him another big yank and he went through the air past me and ... before . . . I laughed about it, and he never got over that—he's always held it against me . . . for laughing at him under such conditions.



Canyon Magic by Catharine Cooper

"Like love, travel makes you innocent again." Diane Ackerman

Serrated clouds drift overhead punctuated by the shimmering stars of the morning triangle. My eyes scan the pre-dawn sky. Laurie Lee and Julie slip quietly through the beach sand to my purple sleeping bag. "Hey, birthday girl. Still want to light the blaster?" I reluctantly slither from my cocoon. Part of me desperately wants to linger, to savor the moment of this last morning of our 16 day journey down the Colorado River. But the childlike glee of something silly, out of place – to light the blaster on my birthday is too enticing to pass up. It's 4:15 am and no one else stirs in camp.

The flame ignites with a loud "whoosh." The girls hand me a small piece of carrot cake complete with candle. I make a wish and extinguish the flame. Light paints the top of Diamond Peak a soft beige. The last of the evening's bats flutter about, scooping up insects in a mad dash before dawn.

Breakfast is simple - bagels, juice and coffee. We are a mere three miles from Diamond Creek, and a sumptuous brunch awaits us after our de-rigging. We load the boats one last time, and begin our final hour on the water – a silent float.

Paddle commands are communicated with thumps on the tubes – one thump for all forward. Two thumps for stop. Canyon walls rise and fall before us - and without words to pull us away, the power of this space carries us deeper into

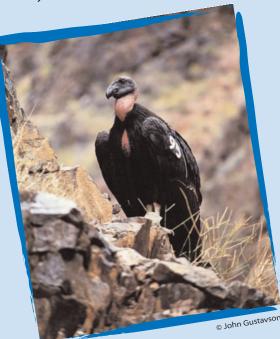
226 river miles have woven our lives together in adventure, in laughter, and in sharing. We've hiked through sandstone, limestone and granite, into the aeries of the red wall, paddled through roaring rapids, and floated through lake like pools. We come from two continents, multiple coasts and spaces in the middle. In the sixteen days, we have become as much alike as not, and our common goal - the welfare of us all – has bound us together.

The canyon bares her soul, and asks us to do the same. After dark, Jeff and Sam gently fill the air with their guitars and voices, inviting song and lulling tired hikers to sleep. Owl tells morality tales. Hank leads spirited games. Evie plays her recorder, and the joined voices in tight side canyons echo our spirits. Birding takes on a new light as we quickly identify the Avocet, Hooded Warbler, Canyon Wren, Merganser, Phoebe and others. Tracks in the sand: the beaver, the ring-tail, deer and the big horn sheep remind us that we share this space, their space, and respectfully do our utmost not to disturb their home.

What is the magic of this deep chasm within the center of the Colorado Plateau? She invites us to let go of our daily race - to be perfectly in the moment. To give ourselves the gift of simply rowing the boat, climbing the rock face, or watching the river roll by. The Canyon brings us to our core and allows us to face our values - to adjust as necessary and to enjoy the luxury of stepping out of whatever madness kept us from here. She beckons, with the drift of current, the tangled web of eddies and the mad rush of rapids to grab hold of the essence of life and return to our other lives, refreshed, renewed, and filled with her Spirit.

El Condor Pasa

By Mari Carlos



The last wild California condors were captured in 1982 when the entire population of condors consisted of only 22 known individuals, 20 of them already in captivity.

The 2 wild birds became part of a captive breeding program, and expansive moves were made to preserve the species, always with an eye to repatriating them in the wild. Under the auspices of The Peregrine Fund the breeding program was more successful than originally hoped, and the first releases of California and Arizona in 1997.

In May of 2003 I had the very good fortune to see one of these rare birds, California condor number 95. She was several years prior and was carefully raised expressly to be released into the wild. Bear in mind that the total world population of California condors by this time was still only about 215 birds. About half of those were in captivity, the rest distributed between two

sites in California and in Arizona's Vermilion Cliffs area near Grand Canyon.

With their phenomenal soaring capabilities the birds have been spotted hundreds of miles from their release site, but they seem to harbor a perpetual fascination with the south rim of the Grand Canyon, the part with all the people! There have been numerous sightings along the rim and in the village, a tourist bonus of the highest order. But my bird was down at the river, near the bottom of the Bright Angel trail. We were awaiting the arrival of our new passengers hiking in to join us on the lower half of the river trip.

I spent over an hour of our wait time watching number 95 as she perched on a small ledge just above the trail. She seemed utterly unconcerned by the fifty or so people who passed under her ledge in the time she was there, only showing brief concern when a trio of mules came by. Once the mules were gone, however, she settled down for more preening and tourist watching.

All the released condors wear large number tags on each wing as well as radio transmitters. I was able to contact the Peregrine Fund upon returning home and give them a report of my sighting, including date, time of day, location, and particulars of the bird's behavior. There is ongoing concern about the condors seeming attraction to humans, but I was told by the naturalist who responded to my report that the juveniles usually grow tired of us once they reach maturity and begin thinking about mates. What I can say for certain is that there are avid birders all over the globe who would give almost anything to see a wild California back into the wild took place in remote parts condor, and mine was practically handed to me. What a fantastic privilege!

For more information about the California condor restoration project hatched at the San Diego Wild Animal Park visit The Peregrine Fund website at www.peregrinefund.org.



The old saying "you'll never know until you go," rings particularly true for the river trip experience. As the Executive Director of Grand Canyon Youth a nonprofit organization working with young people from diverse backgrounds one of my main jobs is to help paint the picture of why a river trip is such a powerful, fun, educational and just plain great

experience. Once the students return, they become the best advocates of our program I could ask for!

Grand Canyon Youth is a different kind of experiential education program. Unlike many other outdoor programs for youth who have expensive tuition, we strive to make our programs affordable to all youth regardless of background. Our programs are not just for rich teens or "at-risk" teens but instead are based on the premise that everyone can benefit from a trip down the river. As an organization we meet this mission by working hard to raise funds to keep the overall cost of the program affordable (our trips run at \$50/day) and then raise additional funds to

provide scholarships through our Adopt-a-Youth program with full or partial scholarships for those who still would be prohibited from sharing this experience based on cost. Another difference is that we are one of the only youth

programs (ages 15-19) to do trips in Grand Canyon. We are proud of our working relationships with government agencies like the National Park Service and the Grand Canyon Monitoring and Research Center as well as many of the commercial outfitters who afford us the access to this special place. In addition, we have programs on Diamond Down (from Diamond Creek to Lake Mead), with generous help from the Hualapai Tribe and on the San Juan River working with Northern Arizona University. We work with groups from schools or community groups as well as individual youth who participate on some of our specialty programs such as the "Writing the Waves"

river program where high school students are joined by an author and participate in writing workshops beneath cottonwood trees along the river bank.

Grand Canyon Youth was founded by three river guides (Carol

Fritzinger "Fritz", Martha Clark and Jon Hirsh) who felt that there weren't enough young people out learning on the river and decided to do something about it. They also felt that participants should earn their trip by completing community service (2 hours for every day on the river), earning a portion of the cost of the trip (youth earn 25% of the trip cost), and by preparing and then presenting an educational project while on the river. All of our Grand Canyon programs have a service-learning element working in partnership with scientists.

Our organization is small but growing serving a record 347 young people on 21 river education programs in 2005. Just like trying to describe a river trip, it is difficult sometimes to convey the educational value, sense of personal accomplishment, and joy that these programs provide for young people who most likely would not have had this experience if it weren't for all the hard working guides, board members, volunteers who make up Grand Canyon Youth. I think the youth often sum it up the best, "Being in such a beautiful place, even if just for a week, helps you see a lot of beauty in life as well as in yourself."

In 2006, we will have a record number of students requesting scholarships for our river education programs. We don't want to turn anyone away who has a space on a trip due to financial restraints. One Adopt-a-Youth recipient writes to her sponsor, "I consider myself so fortunate to have been able to go on this Grand Canyon rafting trip...Thanks you so much for helping make this adventure possible!" (Randi, age 18). If you "know" the power the river holds for those who visit, this is your opportunity to share it with young people, either by donating to Grand Canyon Youth or by helping to spread the word about our program.

If you are interested in donating to the Adopt-a-Youth program or to our program in general please send a check to our office: Grand Canyon Youth P.O. Box 23376 Flagstaff, AZ 86002. For more information about

our programs our website is www.gcyouth.org.



Prepare Properly and Prevent Injuries on your Grand Canyon River Rafting Trip by Erin Chapman

Take the time now to start preparing your body for the trip and reap the rewards of enhanced enjoyment and total rejuvenation of body, mind, and spirit offered to you by the Grand Canyon experience.

Lessen the risks that an injury could limit or even halt your journey and begin training today. We all recognize the value of regular exercise for the maintenance and improvement of our physical health and emotional well-being. Anticipation of the Grand Canyon river rafting trip can actually be used as a motivating force to inspire all of the weekend warriors out there to make permanent lifestyle changes that include regular exercise. The advantage of a physically fit body is of paramount importance to all, but there are three key additional training components that will increase your safety on the trails where the majority of injuries occur. These three components are endurance training, specific strength training, and balance training. The earlier you start training, the better. However, it is recommended you start at least 6-12 weeks before your trip. These elements of fitness will also enhance your year-round outdoor activities.

A key aspect to training for your trip is to build cardiovascular as well as muscular endurance. Just imagine carrying your 30-pound pack up 4500ft on the Bright Angel Trail. The best way to begin is simply with daily 30-45 minute walks. Make sure you have a good pair of shoes. As the daily walk becomes easier, gradually pick up your pace and add stair climbing to your routine at convenient locations such as your home, workplace, shopping mall, or local school. As your muscular endurance and mass increases, your body will utilize energy more efficiently and you will notice less fatigue.

Strength training is another key aspect to help reduce fatigue and decrease risk of injuries. Lunges are an excellent way to strengthen both trunk and leg muscles simultaneously. This exercise emphasizes your quadriceps (thigh muscles), gluteal



muscles (buttock), and abdominals: three key muscles for hiking and bailing water out of the boat. Try forward, side, and backward diagonal lunges. One important aspect of performing lunges is to maintain an erect posture. In other words, as you perform the lunge, keep your chest up and imagine someone pulling a string from the top of your head to make you taller. If you perform the lunge correctly, your knee should track in alignment with your toes. This will ensure that your leg muscles function at their optimum level and prevent knee injures.

During the forward and side lunge, keep both feet facing forward. In contrast, point your toes towards the direction of movement when performing the backward diagonal lunge. To achieve greater training benefits, raise both arms overhead as you lunge. Progress the lunge by adding weight in your hands as you raise them. Use dumbbells or something as simple as a bottle filled with water, dirt, or pebbles.

Another great exercise for your lower extremities is a one-leg mini-squat with an

opposite arm reach. Start by squatting with both legs, as if you are sitting in a chair. Make sure to keep your chest up and lean forward as little as possible to achieve maximum gluteal muscle strength-





ening. Once you are in this position, place your left leg behind you and use only a slight left toe touch for balance. Continue by reaching with your left arm in a diagonal direction towards the ground in front of your right foot.

Do not allow your knee to turn inwards or your foot arch to collapse (pronate) during this exercise. If you begin pronating, place a small hand towel under your arch for support. While balancing on your

right foot, rotate your trunk to the left and reach diagonally over your left shoulder towards the sky with your left arm. Change feet and repeat.

The calf muscle is an extremely important muscle in your body, especially when each foot is in contact with the ground. The calf muscle becomes even more important when walking up hills. To start conditioning these muscles, begin with a two-leg heel raise either on the ground or off a curb or step (more beneficial). Progress as quickly as possible to a single-leg heel raise. Your



goal is to perform 30 full-height heel raises on one leg without rest. In addition to strength and endurance training, improving your balance is another important element to include in your preparation for the Grand Canyon trip. The trails have deep steps requiring greater balance on one leg. Start practicing single-leg balancing in front of a stable, high surface such as a kitchen counter or couch back for safety purposes. Then try single-leg balancing with your eyes closed. Try it in a corner with a chair-back in front of you to prevent falling. Your goal is to stand with ease for one minute with your eyes open and closed. Once you have mastered this skill, place a pillow, blanket, couch cushion or something unstable beneath your feet and try again. This unstable

surface will help simulate the uneven terrain of the trails. When this becomes easy, add twisting or try looking over your shoulder to increase the difficulty. You can also place a small hand weight or a full water bottle in your arms clasped by your chest bone for a greater challenge while looking over your shoulder. For added benefit, when the exercises become easy try doing them while wearing your backpack or fannypack containing one or two litres of water

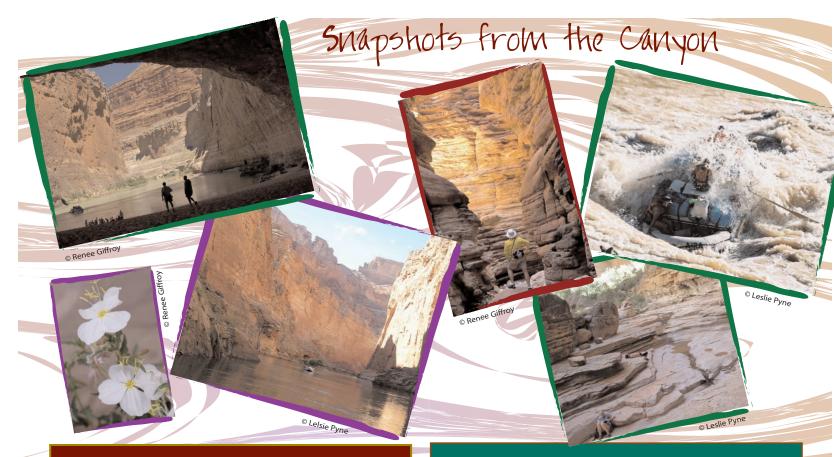
Have fun but do not continue these exercises if you feel discomfort or pain. Make sure to consult with your physical therapist if you have any health concerns or previous injuries that may influence your participation in these exercises. This program

should not replace a visit to your physician or physical therapist.

Physical therapists are specialists in the area of movement analysis, educated in anatomy, physiology, and biomechanics, and trained to develop exercise and strengthening programs for individuals preparing for athletic, sporting, and/or leisure activities. Your local physical therapist can assess whether these exercises are appropriate for you, modify them to tailor your specific needs, and provide you with additional training ideas.

-Erin Chapman, recent Doctor of Physical Therapy graduate University of Southern California

all photos © Erin Chapman



Have a Great Trip? Share It With the National Park Service!

Most of us need a few days to step out of the clouds and come back to Earth after our river trips. It is a perfectly normal reaction, and one that should be shared. Some of us write letters to our outfitters praising everything from the guides to the cuisine.

Remember, though, that there is someone else who would like to know how much you enjoyed your time in Grand Canyon National Park. Send a copy of your letter to the Superintendent so he hears from us how valuable the NPS' licensed concessionaires are. It is important that the decision makers understand that most of us would not have been able to have this incredible experience without our outfitters and guides.

Send a copy of your letter to:
Superintendent Joseph Alston
Grand Canyon National Park
Post Office Box 129, Grand Canyon, AZ 86023

WHAT WAS YOUR BEST DAY IN GRAND CANYON, AND WHY?

Send us your description of what made that day special, it can be any length. We will choose a few of the best memories for inclusion in the next issue of The Grand Canyon River Runner, or to go into the "Community" section of the website. Close your eyes and let your mind go back to that wonderful time you spent in Grand Canyon and let us know what you remember most. Was it a particular hike? Running a rapid? Finding a chuckawalla? Besting your fears? Deadline for the next issue is August 1st, so sharpen your pencil and send us your memories! Submissions and photos can be sent to the "Contact Us" link on the website.

8

Studying the Effects of Glen Canyon Dam Operations on Archaeological Sites

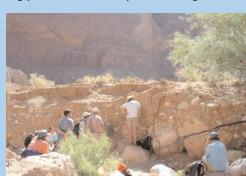
by Amy Draut

The size and number of sandbars in the Colorado River corridor have substantially decreased in response to the reduced sediment supply and alteration of the natural flow of the river by Glen Canyon Dam operations.

The loss of sandbars has greatly limited the available camping area for river runners, in addition to having important ecological



effects. Without natural floods, vegetation cover on sandbars has also increased since the dam was closed in 1963. Because these sandbars are a source for sand that is redistributed by wind, the decrease in open sandbar area caused by erosion and increased vegetation is also believed to cause a decrease in eolian (wind-blown) sand delivery to higher elevation sanddune areas. These eolian sediment deposits are common above the pre-dam high water line; the condition of eolian deposits is important because many archaeological sites are located in them. Over the past decade, scientists have become increasingly aware that many archaeological sites



are seriously threatened by erosion. To understand how these cultural sites can be better preserved in place, scientists from the US Geological Survey work closely with the National Park Service to study the connection between sandbars, eolian sediment deposits, the role that wind-blown sediment plays in preserving archaeological features, and the possible effects of Glen Canyon Dam operations on the condition of some archaeological sites.

In 2003, a research project was initiated by the US Geological Survey and National Park Service, sponsored by the Grand Canyon Monitoring and Research Center, to study the connection between eolian sediment transport and the preservation of archaeological sites. The results of this work have important implications for the conservation of irreplaceable cultural resources. During this study, geologists and archaeologists examined the landscape and sediment types around dozens of archaeological sites to learn what the environment was like at the time the sites were occupied, and to understand what geologic processes



have preserved each site until the present. The team found that many prehistoric sites were built on sediment that was deposited by large Colorado River floods, while others were constructed on wind-blown sand deposits. At many sites, deposition of wind-blown sand has helped to keep artifacts covered and preserved for hundreds of years.

Temporary weather stations were also set up to monitor wind conditions, rainfall, and wind-blown sand transport at several locations along the river corridor. If you were on a river trip between late 2003 and



early 2006, you may have seen these stations. We can now use data from those stations to understand and predict how dam operations might affect areas where archaeological sites are threatened by erosion.

We have learned from this research that some archaeological sites are indeed sensitive to dam operations. Some sites located in eolian dune areas apparently erode because the sandbar that supplies wind-blown sand to protect those artifacts is now smaller (or absent) compared to its pre-dam size. The good news is that it may be possible to restore those sites using sediment-rich controlled flooding to



deposit new sand on the sandbars that supply wind-blown sand to those areas. The 60-hour experimental flood of 41,000 cfs in November 2004 provided an opportunity to study that process. That controlled flood deposited large amounts of sand at all of the study sites monitored for this project. Much of this new sand was then stripped away by high daily flow fluctuations between January and March 2005. However, in places where some of the flood sand remained when the spring windy season began (April and May 2005), we measured a significant increase in the amount of wind-blown sand transported toward the dune fields (and archaeological sites) compared to the spring windy season in the year before the flood. It appears to be possible, therefore, to use sediment-rich controlled Colorado River floods to help restore sand delivery to wind-blown sand deposits and, in doing so, to help preserve archaeological sites that depend on that sand cover for protection.

The River Knows Your Name

(Chris is a long time guide for Arizona River Runners and teaches history in St. George, Utah. He originally started his river career by working for Tony Heaton when he owned Adventures West).

The river community lost one of our own on October 14, 2005. The sudden loss of Anthony (Tony) Heaton , owner and operator of the Bar 10 Ranch on the Arizona Strip, came as a shock to everyone who knew him. On the day of his death, Tony had been doing some of the things that he loved most in life; spending the day in the saddle, marveling at the beauty of nature, and chasing cattle on the Arizona Strip with his boys. Upon returning home later that same day, Tony, age 62, suffered a heart attack while doing chores at his corrals back in St. George, Utah.

Tony was born in St. George, and spent most of his time between town, and the Arizona Stip. As a boy he spent time with his father, a second generation rancher, learning a love for the land and the trade that he would later pass onto his own children. He married Ruby Hafen in 1965, and through the years they brought six wonderful children, four boys and two daughters, into the world. At the time of his death, the Heaton's grandchildren total twenty-one in number. For Tony and Ruby, family has always been their top priority. All of Tony's business decisions and ideas centered around involving the family and providing opportunities for them to work alongside one another.

Tony taught school and coached basketball, track, and football at Dixie High and Hurricane High for thirteen years. During this time, his calm gentle demeanor and intuitive understanding of people, had a positive impact on the students and players under his tutelage. These character traits would serve him well throughout his life. His cowboy blood was strong, and Tony started in ranching with a few cows, along with his teaching job.

Soon, Tony and Ruby, began buying up small ranches on the Arizona Strip, and ultimately ended up with a little over 10, 000 deeded acres and 250,000 BLM acres. In this desert range, with a low annual precipitation, it takes about 130 acres to run one cow. One of the ranches purchased during this time was the Whitmore Ranch that borders the North Rim of the Grand Canyon. Due to the remoteness of the Strip, access to the ranch house was simplified by the previous owner, who had added an airstrip to the property.

Coincidentally, about this same time tourists, by the hundreds, began running the Colorado River through the Grand Canyon, just down-wash from the Bar 10

Ranch. Ranching is a volatile business due to fluctuating cattle prices, weather, and other factors, and Tony always the visionary, saw a way to expand the use of the ranch, and its proximity to the Colorado River. By the time river rafters got to a point near his Bar 10 Ranch, they had already been on the river for several days. As an option to continuing to Lake Mead, Tony began offering mule rides out of the canyon, where passengers could then connect to an old school bus for an eight mile ride to the ranch, and a flight back to Las Vegas. An eight hour round trip mule expedition in the heat, not knowing whether the passengers would actually be there, or if the planes would be waiting at the airstrip "if" the passengers did arrive, and an eighty mile drive over treacherous, sometimes unpassable roads to the nearest medical facilities, should the need arise, gave the words "daring" and "adventurous" proper meaning. Keep in mind the fact there were no telephones, or radios, or internet for communication with one another, the rafting companies, the airplanes, or town.

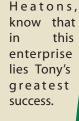
In 1983, a time when interest rates approached 25%, Tony envisioned sending a fresh supply of passengers down to the river, to exchange with the passengers leaving at Whitmore Wash. Pioneering the lower end trip, Tony was convinced that by building a facility with overnight accommodations, he could share the passion of a family ranch, and the Arizona Strip as a starting point of a river trip for people looking for a truly unique experience. He approached Western Rivers Expeditions with the idea of selling lower end trips. . Western Rivers caught Tony's vision and began selling the trip. The Heaton family hauled materials the 80 miles from St. George throughout the fall and winter, and built the lodge, literally hooking up the stove that next spring as the first plane load of passengers arrived at the ranch! Guests were provided a western experience, featured at first entirely by the Heaton family. The mules would be replaced by helicopters in 1985, and other river companies would soon begin selling lower end trips. In 1988, Tony bought Cross Tours, renaming the company Adventures West. After three years, he sold the permit to Arizona River Runners and concentrated on the expansion of the Bar 10. In 2002, Gavin and Kelly became partners with their father. As partners in the business Tony and his boys also recently added ranch lands

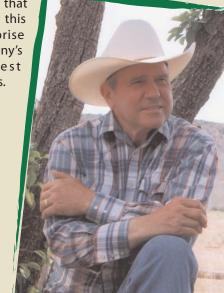
near Panguitch, Utah, as well as additional ranch lands near Whitmore to their previous holdings. Other notable contributions by Tony included his work with the Grand Canyon Trust to preserve public lands on the north rim.

The mission statement of the Bar 10 Ranch is such a strong reflection of the man behind the vision: "It is our purpose to provide a unique western ranch experience, in a safe atmosphere of genuine western hospitality. All agendas, activities, and experiences are planned and presented so as to uplift and inspire our guests in the following ways: Preserve the pristine feeling of remoteness and seclusion from the everyday world. Enjoy the unique beauties of this majestic area. Feel at one with nature and at peace with self. Sense through the genuine care and concern of the Bar 10 crew, that each guest is an integral part of the Bar 10 family." To date, the Heatons estimate that some 170,000 guests have been through the Bar 10 Ranch.

Gavin, Kelly, and Ruby Heaton will continue to operate the Bar 10 Ranch in the coming years. Having visited there recently, I watched as Kelly's kids followed him, lending a helping hand as the situation allowed, much as I envision Kelly and his brothers did with Tony, as the stewardship, and traditions pass to the next generation of Heatons.

On the rainy day of his funeral, I imagine that Tony was looking down from atop a horse somewhere, with his gentle manner and quiet assurance, thankful for the rain, and thankful for friends. But most of all I can see him beaming with pride for his family, for anyone who has met the





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Send us your journal entries, poetry, letters to the editor, humorous stories, photos and original artwork for publication in the next newsletter or on the GCRRA website. Electronic submissions are preferred, and MSWord is preferred for text contributions. We can convert from WordPerfect also. Click on "Contact Us" on the GCRRA website: www.gcriverrunners.org to submit all materials. Technology challenged? Mail your contributions to our PO Box. If you need more information your question will be routed to the Editor.

Deadline for the Fall issue is September 15, 2006.

NEWSLETTER DESIGN: CATHARINE COOPER: WWW.COOPERDESIGN.NET

Catharine Coope

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