

THE CONFLUENCE

The Journal of the Columbia River Valley Chapter
Volume 2, Number 2, Spring 1988



Avoiding Conflicts

Frank's Saga

CNP BMP

Spring Meeting

Injuries

The Prez Says

Papua New Guinea

The River Mild

Climate

Eon, Era, Period, Epoch

Book Review

From the Eddy



This drawing was done by R. B. Smith, and depicts a scene described by Frank Long in his autobiography concerning his travels north of 1961. The artist was inspired by the river.

The Confluence

...is the quarterly journal of Colorado Plateau River Guides.

Colorado Plateau River Guides is a non-profit organization dedicated to:

- * Protecting the rivers of the Colorado Plateau.
- * Setting the highest standards for the river profession.
- * Providing the best possible river experience.

Guide Membership is open to anyone who has worked in the river industry.

General Membership is open to everybody.

Membership dues:

\$20 per year.
\$100 for 6 years.
\$195 for life.
\$295 Benefactor.

General Meetings and Board of Directors Meetings will be announced.

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Colorado Plateau River Guides
P.O. Box 344
Moab, UT 84532-0344
(801) 259-8077

We need articles, artwork, poetry, stories, and opinions. If you use a computer, please send text for an IBM PC with WP 5.1 on a 5 1/4" floppy.

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A Disclaimer

The opinions and statements made within the pages of The Confluence are those of the author and do not necessarily represent the position of the guide membership, the board of Colorado Plateau River Guides, nor Canyon Country Volunteers. If you have an opposing viewpoint please send your comments to:

Editor, CPRG
P.O. Box 344
Moab, Ut 84532

Special Thanks to:

Deb Malecki for a six year membership.
Bruce Winter from Arizona River Runners for a Lifetime Membership.

CPRG DECALS

Thanks to the efforts of board member Sean Brown, we now have decals. To save postage, we decided to include one with the mailing of this issue to all current members. We also have a decal with the same logo except it is displayed on clear plastic; which would be great for a windshield, window or a glass door. If you want one of the clear decals, please send us a letter to the affect with a check for \$2.00. Add \$.50 for each additional decal.

New CPRG Membership Discount

Times-Independent Maps and Books offers a discount to CPRG members. They also carry miscellaneous river type gear and will laminate cards, etc. The address is 29 East Center, Moab, Ut 84532 (801) 259-5529.

The Adventures of Joe Hammer

Peter Yuschak had the pleasure of sharing a five day river trip through Desolation Canyon last July. Peter sent us a comic strip which is featured in this issue of The Confluence. Special thanks to Rosemary Kaszuba.

SPRING MEETING

We would like to thank Roger and the staff at the Fat City Smoke House here in Moab. We had an absolutely wonderful breakfast to start our SPRING MEETING. We conducted part of our meeting in their patio. We later took a break and hiked up into the Navajo above the Moab boat dock to conduct the rest of the meeting in a grotto protected from the wind and rain of a typical blustery spring day. Did you know you can find river gravel perched about two hundred feet above the river at this locality?

CPRG BROCHURES

Thanks to CPRG director Steve Young, we also now have CPRG membership brochures to pass around to our friends and customers. Let us know how many you would like and we will mail them to you. We have also left a couple hundred brochures at the BLM ranger stations at Westwater and Sand Wash. Feel free to take as many as you think you need. We will try to keep these places stocked.

Thoughts On Avoiding Conflicts

by Steve Young

Over the past year or so, I've ran into a couple dozen people who feel there is a serious communication flaw happening along the river corridor. I agree, since I've found myself listening to accusations that were nothing but perceptions set in sand then watching them turn into verdicts of guilt with no questions asked, even after talking to the people who made the accusations. Regardless of who you are and who you work for, shouldn't we gather the facts and make our judgements based upon those facts? Or is our judicial system based upon rumors and first impressions? Here are some ideas I have that are simple and effective if your willing to consider them.

What would you think if I were to share my ideas on how to effectively cure the communication problem found within the river corridor? Would you be interested in knowing about it?

Now, let's try that same statement again. HEY BONEHEADS! I found a cure for the communication problem and I'm going to tell you about it because you obviously don't understand!

Would you be still be interested? No, and my approach to the above statement is why we have this communication problem.

How someone approaches you or how you approach someone else sets the tone for the ensuing conversation ahead. If you try talking to someone when your really pissed-off, how does the conversation usually turn out? Try cooling-off and think about the root of the problem from the opposing side of the issue. If you instinctively conclude someone is guilty and then talk to them about it, you are going to hold some bias towards them. Go over not thinking about what they've done, but to

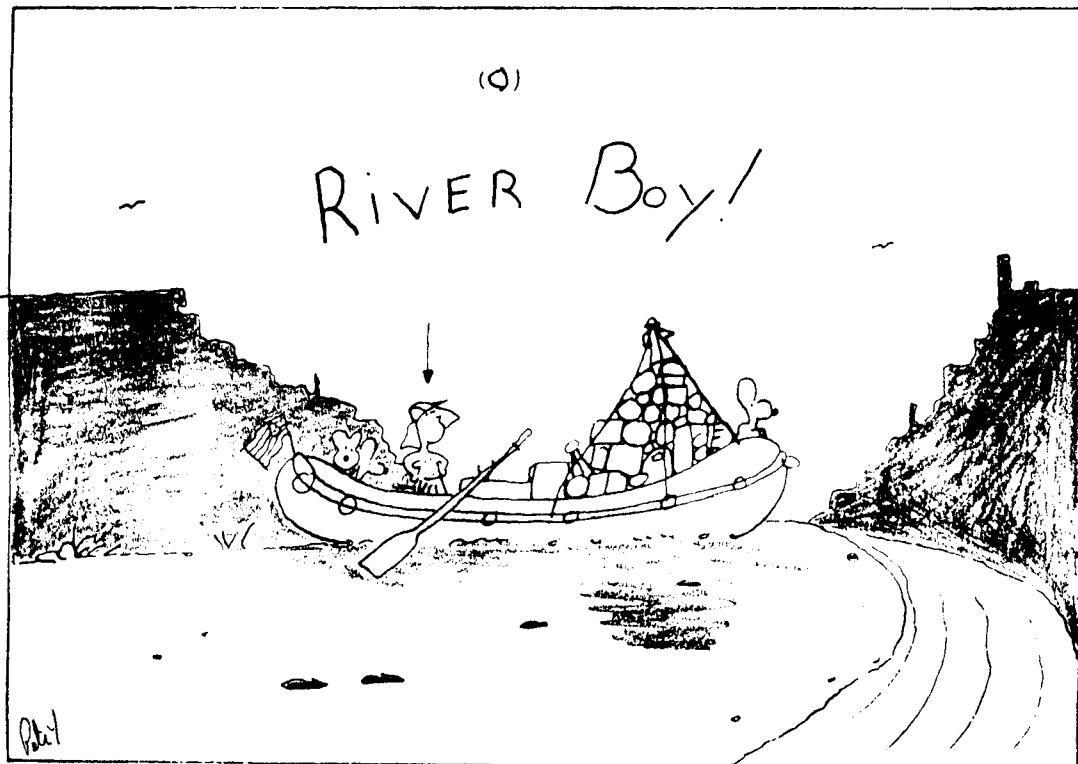
find out what is happening or what happened and then decide where to go with your acquired information.

Here is the same idea again: you see someone doing something wrong and you want to inform them about the problem you think they are creating. Approaching them the wrong way is going to cause confusion and/or negativism towards them, their clients, you and whom you represent. Inform them of the problem you believe they created. Ask them to consider the implications involved. Treat them as an innocent and discover all the facts before pronouncing guilt. Don't go in there hot-headed, assured that they are malicious in their intent. People do wrong things usually through misinformation, not maliciousness. If someone is misinformed, they stand a lot to learn in an area where they seem to lack appropriate knowledge. Teach them, pass on your knowledge and skills, and see if they follow along. What do we have to lose? We only have something to gain.

Teaching is the answer. How do you effectively teach people about the issues that concern us? Openness and willingness affect people more than simply stating or preaching a view. What qualities did your favorite teachers have? Did they tell you about the way it was, or would be? Or did they give you the tools, resources and the support you needed to accomplish the end result? For instance, when you tell people about dams on the river, tell them all the pros and cons and let them decide what to think. I'll bet you more people will be interested in your program than if you preached your personal view. Preaching seems to turn people off, teaching empowers people to think, which continuously happens even after the river trip is over.

For a quick reminder of how to deal with a situation remember this acronym: don't be a JACKASS! J - don't Judge someone before you - A - Approach them and start - C -Communication. After you have your Knowledge then - A - Assess the who, what, where and why. If needed - S - Support them by teaching a better way. And, since there needs to be another - S - go back to your boat and Sip a drink to celebrate handling a situation in a positive way for all the concerned.

There is really no excuse for doing something wrong and people who do need to know. However, in the process of learning, people still make mistakes. Also, lets not keel-haul people for the small things, let's work effectively on the larger issues that concern us all.



THE PREZ SAYS

In the last issue I voiced concerns, during our unusually warm February, that we may not have any water to float this year. Not a problem. This is a great season to be on the river. I have been enjoying the thrill of Cataract Canyon in high water. You would think that the stress of high water Cat would be enough to keep my mind occupied; however, it's not the run in Big Drop II that has been troubling me. No, it's coffee.

So far this season, the argument at the top of my list has been the best way to make coffee. In discussions regarding coffee, I find that it is wise to determine the credentials of the other people involved. You might want to ask a few questions, e.g., "Do you drink coffee?" or "How many cups do you drink a day?" or "Do you think coffee is a disgusting beverage not fit for swine no matter how it is prepared?" The credibility of non-coffee drinkers, in a discussion regarding coffee, should be seriously questioned. I have been put in the uncomfortable position of defending cowboy coffee to non-coffee drinking guides.

There are hundreds of ways to make cowboy coffee. I make it like this: First bring a pot of water to a rolling boil, remove the pot from heat, and add three to five handfuls of coffee, depending on pot size. With the lid in place, allow the pot to stand until the coffee grounds on top have absorbed water and are moist, give the pot a few swings back and forth (of course if there are customers watching do a few full swings for effect and hope your handle holds). Yell coffeeeeeeeeeee!

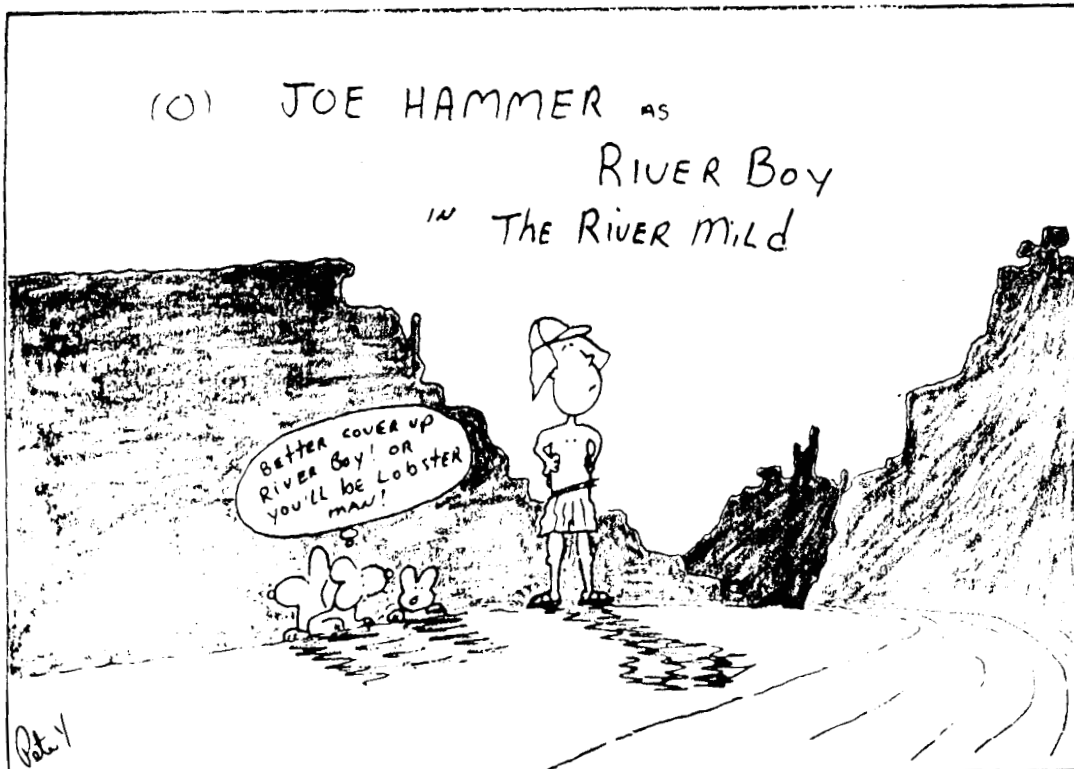
People who don't like cowboy coffee complain that the grounds get in your cup, the coffee is bitter, the coffee is cloudy, or even that coffee is a disgusting beverage not fit for swine no matter how it is prepared. OK, if you don't like to chew on a few grounds at the end, use a small hand strainer. But what's this I hear about bitter or cloudy coffee? I don't recall having this problem with the cowboy coffee I've made, except, perhaps, for the time I forgot the coffee reheating on the stove and let it reheat until it resembled an extremely interesting geothermal feature. It is important to note that, thanks to a few diehards dedicated to the cause of caffeine conservation, even this coffee did not go to waste.

Other options for preparation include percolated and drip coffee. Drip coffee is impractical on the river, since it's very time-consuming and the coffee is cold by the time you can finish a large pot. This leaves us with perked coffee, which tastes just like cowboy coffee but takes longer to make.

A friend of mine says that the true secret to good coffee lies not in method of preparation or even the type of beans, but the quality of the saturated fat that you add to it. Real cream can save anything but the instant stuff. Hot water isn't a bad idea, either, if you find yourself in the middle of a cross-cultural conflict regarding coffee strength. Americans tend to like their coffee weak, while the Europeans usually like their coffee strong enough to strip the paint off your ammo cans.

In the end, it doesn't really matter how you make your coffee, just that you make it strong enough. Caffeine withdrawal can be ugly. But if you do have an opinion on coffee preparation, please drop me a note. Make sure you indicate your credentials on the outside of your envelope, so that it may be filed appropriately.

Susette DeCoster-Weisheit



The Backcountry Management Plan
Canyonlands National Park (CNP) and
Orange Cliffs Unit of
Glen Canyon National Recreation Area (GCNRA)

Tough the backcountry management plan affects land tour operations more than river operations, there are still some items that river guides need to be aware of. We have compiled a synopsis of these regulations. This list is incomplete and deals with specifics that might be encountered while conducting a typical river tour.

CLOSURES

1. CLOSURES OF CRITICAL BIGHORN SHEEP HABITAT, NEEDLES DISTRICT.

Lower Salt Creek and Lower Elephant Canyon will be closed to all human entry from May 1 to September 1. These canyons are important desert bighorn sheep habitat, but the canyons are especially narrow with little escape terrain for highorn sheep. The bighorn sheep population in the Needles District is declining, with only an estimated 40 sheep remaining. Lamb survival has been minimal with only one to two lambs surviving the year for the past two to three years. The closure is intended to minimize disturbance to lambs. If the bighorn population recovers, this closure will become less restrictive.

2. CLOSURES OF RELICT AREAS.

Relict areas in CNP and GCNRA are defined by the Nature Conservancy as "small places with pristine plant communities... where topography has kept out motor vehicles and livestock grazing". Since there are so few of these areas in the arid west, preservation of the few remaining

relict areas allows biologists to assess the impacts of human activity on native biota. Unfortunately, even trampling by visitors can alter the biota.

JASPER CANYON, MAZE DISTRICT. Entry into Jasper Canyon from the Green River is allowed for the first quarter mile (to the Jump). Entry for non-scientific uses is prohibited beyond this point. Views into Jasper Canyon will be possible from many locations along the rim.

3. RESTRICTED USE OF THE DOLL HOUSE, MAZE DISTRICT.

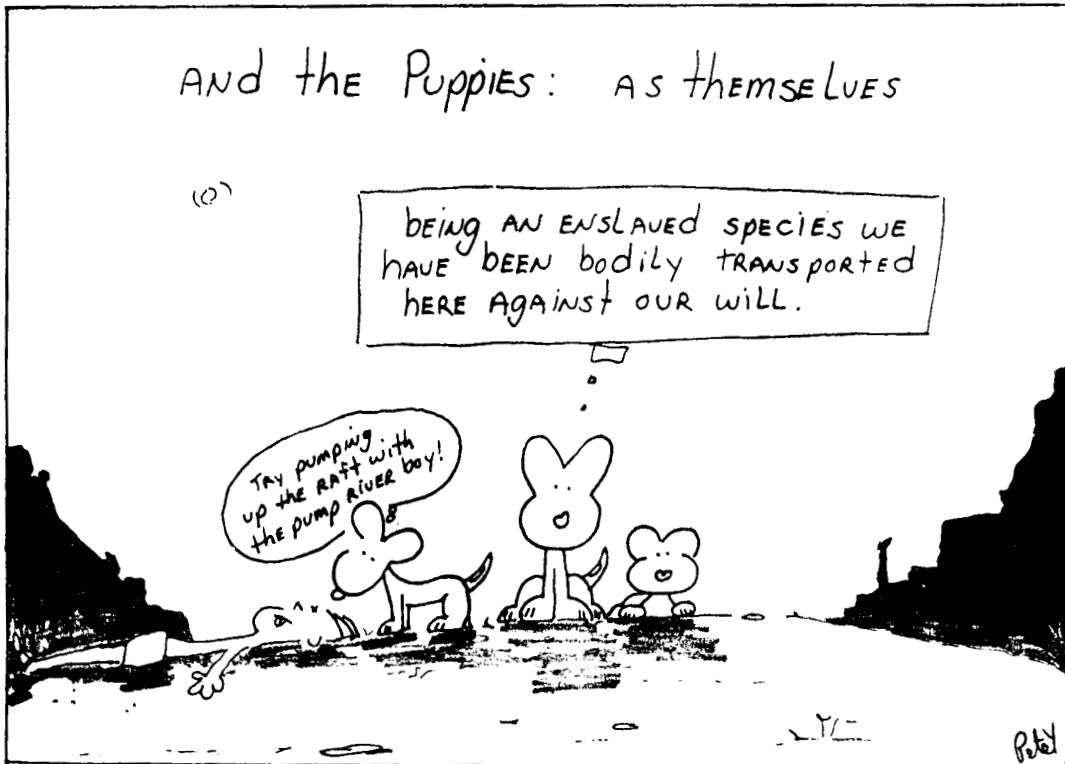
To reduce impacts from trampling and multiple trailing, only designated trails may be used when hiking from the river through the Doll House area of the Maze District. Trail marking will be upgraded to facilitate use of designated trails. Backcountry permits are required for overnight stays in this area.

CULTURAL RESOURCE PROTECTION

1. ENTERING ARCHAEOLOGICAL AND CULTURAL SITES

The Code of Federal Regulations (36 CFR 2.1 (a)(5) states that archaeological and cultural sites may not be entered by visitors. This means visitors may not go inside structures or human-made enclosures, whether prehistoric, protohistoric, or historic. Visitors may approach outside walls on structural sites, but they may not go inside structural walls or enclosures. These sites are often fragile, and much of their educational and scientific value can be lost if they are damaged.

The boundaries of an archaeological site include ephemeral surface features such as middens or garbage dumps, surface scatters of broken ceramics or stone tools, and extramural hearths or fire rings. The law prohibits entering, altering, or damaging these surface features, as well as structures. Middens and surface artifact scatters almost always surround the rock art and structural features. However, since virtually every archaeological or historical site of interest to visitors has a trail to and through it, visitors may legally cross middens, overhangs, surface scatters, etc. to see features of interest as long as they go single file and stay on existing trails. Walking off existing trails through archaeological or historical sites is prohibited under the Code of Federal Regulations and the Archaeological Resources Protection Act.



Comments on the Spring Meeting

by John Weisheit

Guide Certification

We unanimously decided to implement a guide's certification program. This is something we will execute on our own with the cooperation and direction of a steering committee that will include outfitters and government agencies. The intent is to allow the guide membership of CPRG to oversee standards of certification. The program is not mandatory -- strictly voluntary. Guides that pass a certification test will have a document that can be presented to an employer for agreed upon privileges and/or pay increases. Outfitters in turn will benefit in such a way as to attract customers; perhaps even advertising their guides as certified interpreters of natural history. Examples of advantages to the guide might include conducting "step-on" bus tours in National Parks, or to guide trips into restricted areas without ranger escort, such as in Horseshoe Canyon. Hopefully too, guide activism will increase, as will the participation of guide training courses currently offered by Canyonlands Field Institute. More than anything this will professionalize the guiding industry and validate our occupation. I feel this move is visionary and I commend the attending CPRG guide membership and the board members.

BLM Wilderness Proposals

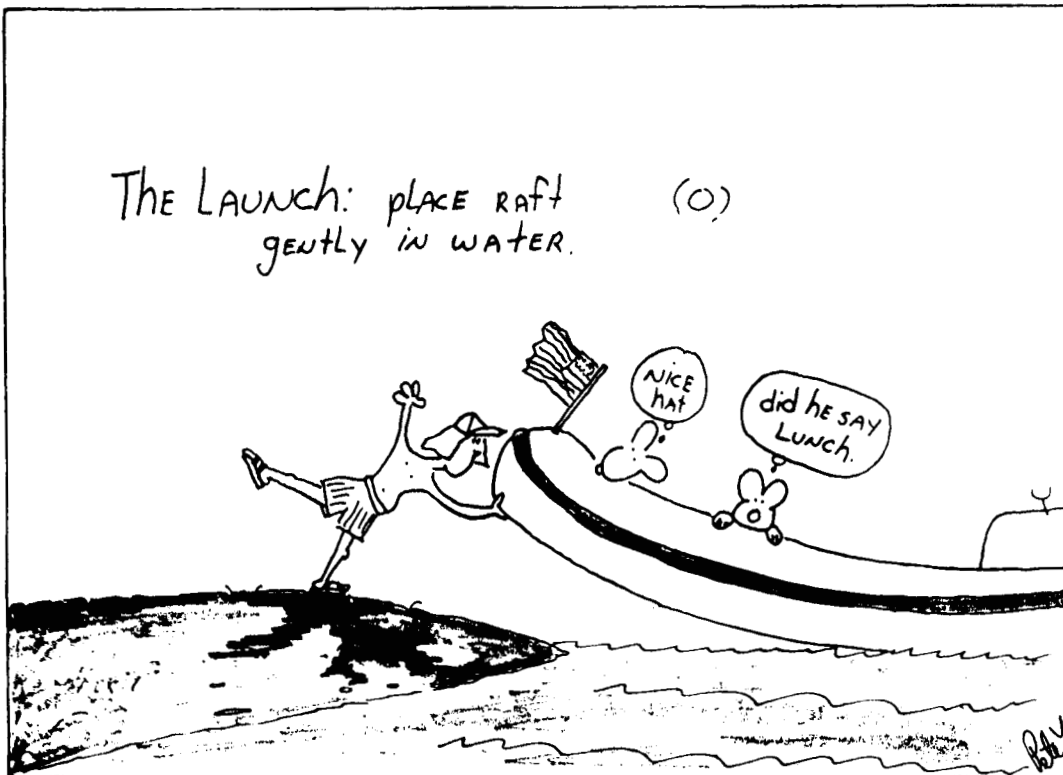
As recommended by Utah's Governor Leavitt, BLM wilderness proposals have been key agenda items for all county councils statewide. The CPRG board has written many letters to support wilderness legislation, especially for Westwater and Desolation canyons. Should these wilderness proposals fail, blame can be assigned to extractive mining interests. This is anything but visionary.

Motorless River Sections

Basically, the CPRG guide membership seems to favor the creation of: the motor free river corridor. However, we are also concerned about the physical health and the positive mental attitude required of river guides to conduct a quality river trip. After lengthy discussion, we decided not to endorse noiseless river corridors until which time trip lengths are increased by the demands of the market. Since competition in this marketplace has created the abbreviated trip, motorless river corridors would create nothing but a haven of grumpy guides with severe joint maladies. Perhaps the best way to create a motorless river corridor is to define a river management plan that allows for minimal trip days; adjusted according to high water and low water launches.

Workman's Compensation

Bad news! Rates went up again for Utah outfitters. For now, it seems the only way to reduce claims and lower premiums is to monitor our working conditions and to affect a safe working environment. Trip leaders need to take this responsibility head-on. These costs are being passed on to our customers and crimping our paychecks.



The Autobiography of Frank B. Dodge

edited by John Weisheit

In my opinion, Frank Dodge was one of the best pioneering boatman to ever work a pair of sticks. This article was made possible by the Marston Collection at the Huntington Library. Special thanks to Rosalyn Jirge. The original text was compiled by the Tucson office of the USGS in 1944. Artwork by N. B. Powell. Brackets indicate editorial comment.

Introduction

The guy that floats never lands till old age and ailments force him down -- and then what? The young fellow who sticks through college, takes his first job in engineering and marries early has, in a few brief years, accomplished more towards the real aims in life than all the traveling bees in one's bonnet will ever do.

1891 - 1907

I came into this world one moonlit night on August 1, 1891 and later it shocked me to know that I had been Nature's gift to Mother on her 34th birthday. This happened at Waikiki and a few days later I'm told, she bundled me in a tapa cloth and carried me to the beach. [There is a Hawaiian tradition to] toss a new born baby into the first breaker and if it sticks to the sand as the wave spends itself grab it. If the backwash carries it back to Davy Jones' Sea Chest, oh well, it's the will of the gods. Well, I must have stuck. [See front cover drawing.]

I remember learning to swim at six, surfing, hunting land shells in the 3,000 ft. mountains backing the town and coasting on a beautiful two-mile grade via bicycle wheels set to axles.

Father built his own home two miles inland in 1898 across the street from Punahou Schools. Father held three jobs after graduating from MIT. First, laid out the town of Pullman (Pullman Car Co.), then when the Kingdom wanted to streamline their Survey Department, went to the Islands in 1876 for that purpose. He was Superintendent of the Bishop Estate -- a large land grant holding concern, operating the Bishop Museum and Kamehameha Schools for Hawaiians.

About this time Mother put us three boys [Philip and Stanwood. Dodge also had a sister named Charlotte.] in Blackman's (English) private school and about all we learned was how to play soccer. After becoming proficient in soccer, we boys went to Punahou School. I graduated from Panahou Prep in 1907 at the age of 15.

Every weekend saw us "going mountains". We'd hear about school boarders planning a mountain trip and we would buy 25-cent bamboo wrapped black powder bombs. We'd trail a party, keeping out of sight, and long after dark sneak up on them. Then a terrific explosion and black smoke would envelope the sleeping forms. If one bomb didn't send them scooting, we'd wait an hour or two for a second. Seldom did

the second fail.

Just after school let out, our swimming team took part in an aquatic meet with other schools, boat clubs, and a general town team. I happened to win the 50 [Australian Crawl] in 28 flat with a lucky stroke of the hand. When our four man 200-yard relay team went to bat, it was a runaway.

A month with Fred Harvey's survey party on Kilauea plantation finished out the school vacation so I entered Punahou proper as a freshman. I seemed to be more interested in football or anything that kept me out of doors, especially soccer. The girls played basketball in those days, in black bloomers, and no he-man would ever go near them. It was considered sissified to hang around them and few did.

1908 - 1909

Around the end of 1907 schooling went from bad to worse. Father permitted me to quit so I found my way along the docks looking for a ship. The 900-ton three masted barque Nuwana lay in port taking on sugar. I shipped as "boy before the mast" at \$5.00 a month and set sail February 15, 1908. We sighted Cape Horn just two months out of Honolulu, it was a solid line of hugh icebergs day after day. We anchored off Staten Island three days waiting for a berth in Brooklyn where we unloaded 1,700 tons of brown sugar.

A letter arrived from home with a \$100 check and saying "If shipping fails, take the train". I held in my hands the means to see America first. In Cheyenne I entered my first saloon and am beginning to think it should have been my last. In Frisco, to be in style, I bought a derby and began smoking five-cent Owls. I was getting to be quite a "man about town". Yet something was wrong. I located the S. S. Mongolian and decided to go back to be an ordinary working man by using Bull Durham cigarettes. Never liked cigars anyway. Took second class passage at \$40.00 and landed eight days later, about December 10.

1910 - 1914

In early April 1909 I went to Kanai for Knudsen as a stream gager, he being interested in water conservation due to his cane holdings in the lowlands. I kept tab of three staff gages which occupied me some three hours a day and was paid \$20.00 per month. Sometime in January 1910 the USGS took over and my pay jumped to \$50.00. Work was expanded by clock gages, cables and rain gauges put in over a large area. During this time the Topographic Branch was in Honolulu where they were getting ready to tackle Maui and Hawaii. We then all went to Kohala, the district of North Hawaii. Here I recorded for C. H. Birdseye who later became Chief Topographic Engineer.

I quit the survey about October 15 and went to Puu Waawaa cattle ranch as part time bookkeeper and the intention was, to eventually become foreman. I must admit I didn't stick. If I had I might now be a big ranch owner or at least a big white foreman, or better yet a manager or

a superintendent. Some of the whites got into the habit of yelling and shouting uncouth words at their help and I, being a part of the help, came in for a share of it. Well, being white I had to rise up and speak my piece while if I'd been brown or yellow, chances are I'd be there yet. I just up and quit and hit for Kailua, Kona for a boat to Honolulu.

While at home I visited Dr. Thomas A. Jagger, volcanologist in charge of the then now Hawaiian Volcano Research Association's observatory at Kilanoa and he took me on as his helper in January 1912. Here I did all sorts of work such as gathering specimens, mapping the lava lake daily, construction, writing a weekly column for the Honolulu paper and keep the wheels turning while Dr. Jagger went back east.

On Jagger's return from Boston, he was quite pleased with my keeping expenses below his budget so had to get the screwy idea that I continue my education. I'd go to MIT, but how the heck would that institution pass one who hadn't gone through his first year of high school. He and Birdseye and a couple of others have tried to push me along towards better things in life and all have failed. Having \$4,000.00 left by a generous aunt for just such a purpose, to be sent by Father when needed, with half a dozen letters from my sponsor to MIT's faculty that I was to be a special in mining engineering, with \$300.00 in my pocket and last but not least, a full page of girl's addresses in San Francisco copied from the hotel registry, I set sail on the good ship Lurline about August 15.

[Dodge then explains his doubts about acquiring a higher education.]

I headed for Sacramento and the USGS Topographic office. George Davis, whom I'd known in Hawaii, was District Manager and he put me on recording south of Stockton. This job lasted up into the winter. I wanted to get into the forest service in the spring so wrote to the San Francisco office. I picked a job on the Sequoia Forest from May 1st to the end of October as fire guard. That first summer (1913) was spent mostly above timber line at the head of Kings Canyon on trail work or on stringing telephone line.

And it was while here that the World War broke out in Europe, and that I was called in to St. Helene, Napa County, at Father's death. I later worked as packer for a tourist outfit in Kings Canyon.

1915 - 1916

I went through Goldfield, Tonopah, Austin, and finally landed in jail in Battle Mountain on the Humboldt River. It was a vicious combine consisting of a girl, a cop, and the J.P. Monday morning I was fined \$20.00 for starting a fight that I'd never seen or heard of. I was on my way to Frisco and some two weeks later arrived in Honolulu right back where I started from.

1917 - 1919

[Dodge basically becomes a commercial seaman until

the United States entered the First World War, where he then joins the Navy. Dodge later deserts the Navy, takes on an alias (Frank Galbraith), and joins the Army with the intention of experiencing infantry action in Europe. The Armistice comes and now he must face desertion charges, which are soon dismissed.]

1920 - 1921

[Dodge is now in Globe, Arizona] When I'd save enough money I packed a knapsack and with a 38-40 Winchester started for Cooley (now McNary). That was February 1920 and when I hit the Salt River at Horseshoe Bend, it seemed to be in flood. There I met a lone prospector and that night around a campfire I heard the awfulest shooting stories I ever heard next day I felt I had to cross the river so gathered a few old planks until I had enough for a raft to hold my upper body out of water. If anybody had asked me what I was doing in these sorts, I would have said, "Hunting a 640 homestead". I don't know if I ever saw a piece of grass I really wanted except perhaps over in the Trumbull Mountain area, southwest of Fredonia but it was a sort of an excuse to go exploring.

I headed for Flagstaff via Cibique, Young, Payson, Pine and Mormon Lake. I stayed a few days in Flagstaff, having time to break open a large packing case containing riding equipment, which had been sent to me. I then rode out to Tuba City on the mail stage, hunted up a Navajo sheep camp and started dickering for a couple of burros. I then headed up for the Gap trading post via a route east of the ridge. There I met Buck Lowrey and family for the first time. I then headed up to Lees Ferry. On the way over the old dugway, I rang the big bell that used to be there as a signal to the ferryman who lived on the Paria Ranch. After a time Frank Johnson showed up, hollering across the river, told me I couldn't cross for several days because the cable had been monkeyed with. Somebody had deliberately tried to wreck the plant by loosening the U-bolts and, though the cable had sagged almost to the river, it had finally held. I drove the burros up river two miles and turned them out on the flat in front of the cave and then came and helped repair the damage.

From here I chased my burros towards House Rock and made camp just beyond the upper pools (Jacob pools) which lay under the Red Rim and several miles beyond what is now Mrs. Russell's bailiwick. That evening cowboys joined me at the fire and from then on, I found out later, I was a suspect. Either I was a stock association spy or a spy for the Forest Service which handled the game problem. When the cowboy saw U.S. on my army mess kit and the USGS on Powell's old topographic sheets, he was sure I was in there snooping. I worked for the Forest Service awhile that summer and in September joined the Bar Z outfit at their V.T. cabin on top of the Buckskin and it was there I learned I was looked upon more as a detective than a cowpuncher.

1921 - 1923

We were hearing rumors and often seeing Southern California Edison Co. men out here about the big dam so I wrote to the Sacramento USGS office and sure enough they were ready to start cooperative work between the Company and the Survey. I was told to meet a Mr. Scank at the Commercial Hotel in Flagstaff, he being the engineer in charge of levels for the Edison Co. Well, I went to work recording for one of two level parties running out from Flagstaff to some know point near the present gage well.

Late in the summer we worked up river 50 miles by boat. We were present when the Coast and Geodetic tied into each others parties in Glen Canyon, one coming down from Green River, Utah, the other working up from here -- a distance of several hundred miles -- and checking to within 0.4 ft.

I thought I needed a vacation so went down to Phoenix, then over to Los Angeles and was back in Flagstaff the latter part of 1922. There I met Calhoun, a mining and civil engineer who was once tied up with Charlie Spencer, the evil instigator of the hydraulic mining company that spent a quarter of a million good English dollars in trying to mine three-cent a yard gold. Anyhow, in 1922 Charlie was trying another fantastic scheme, this time an irrigation project (on Los Angeles money) forty miles up Paria Creek and I was hired as rodman. We came back on the Paria at old Adairville just below where Calhoun and Spencer had located a 200 ft. dam site.

[Dodge soon goes back to cowpunching around Wolf Hole.] El Tovar was putting in an ice plant so I went up to the top, turned my horses on pasture and got a job with the contractor. This lasted until the end of October [1922].

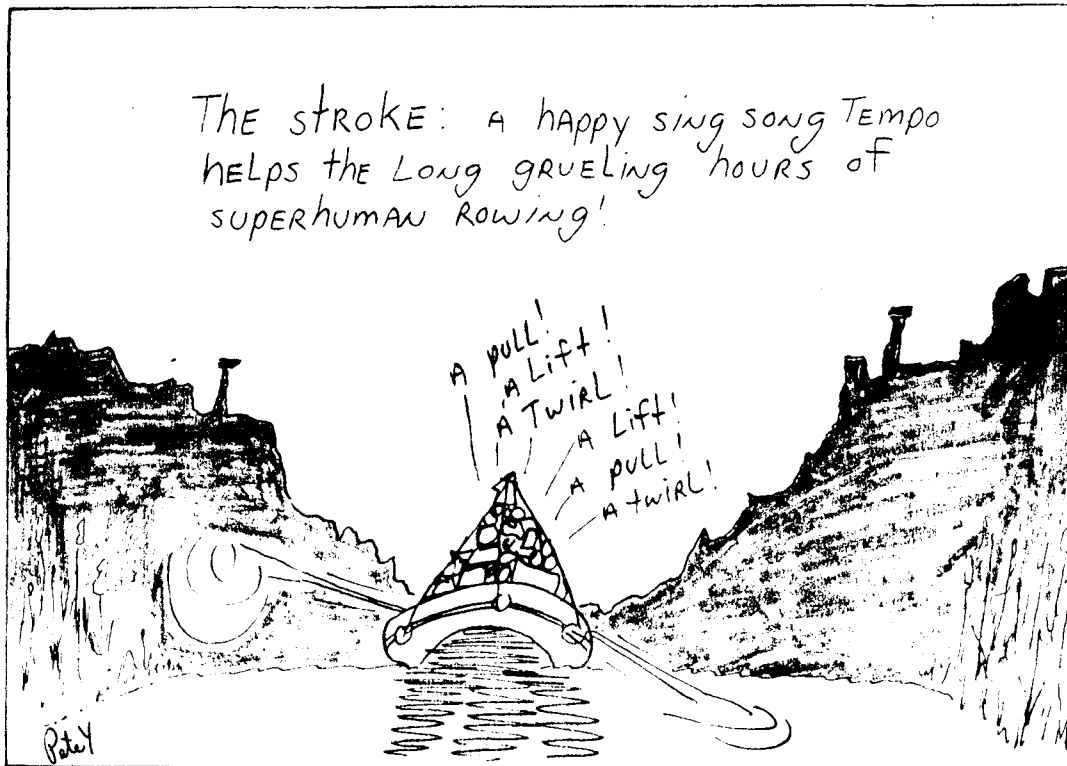
Emery Kolb had told me that C. H. Birdseye was planning a Canyon boat trip for the following summer, so I wrote in just in time to get on.

While in the public campground, I'd become acquainted with a fellow named Shorty Robinson, who seemed footloose and carefree. [We bought horses and a pack outfit and went to Lees Ferry.] We hit straight across the lower end of House Rock Valley for Little Mountain which is part of the Kaibab jutting out to the east and forming a triangle by South Canyon, Marble Canyon and Nankoweep. We stayed in there about a week and then [went down the Nankoweep trail and stayed at bottom through January.]

In April I joined the Mesa Verde Park labor gang when down to one dollar in my pocket. My luck in getting jobs was still holding out. Here I met Neusbaum and his family (superintendent). It would be hard to find a nicer outfit and Park Service at that!

I'd been in communication with C. H. Birdseye intermittently for the past year in respect to the coming of the river trip and had learned the party would consist of ten men -- that I was too late in getting on as a boatman and all he could offer was rodman at \$150.00 per month. I'd have gone for nothing. The party came out here about the middle of July and made camp under the old Edison Company boat shed across the river near the lower cable A frame. If anybody wants to know why I'm not in the group picture as of the National Geographic of May 1924, it's because I swam the river on some errand for Birdseye and while talking to Cackroft (Edison Co.) about it, he said, "Frank, want a cup of my fig wine?" I had a cup and then another and then

reported back to Birdseye. When Birdseye became three Birdseys, I hunted a shady spot and passed out. That was very potent wine or perhaps the heat had something to do with it.



There is more but I'll save it for a rainy day. For further information please read the following books: Rough Water Man, a biography of Elwyn Blake, by Richard Westwood. River Runners of the Grand Canyon, by David Lavender.

by Tom Martin

The following is from a preliminary paper involving guides who work in the Grand Canyon. As the results may be helpful for guides upriver, here's a review of what was done. The purpose behind this study was to look at the following questions:

- 1) Does guiding in the Grand Canyon hurt?
- 2) What guiding activities hurt most often?
- 3) Where do these activities hurt?

With the answers to the above questions, it may be possible to identify the mechanical processes responsible for injuring guides. A clear understanding of the mechanical processes of injury may then be used to develop techniques to decrease on the job pain and numbness. Information for this study was gathered by questionnaire which was mailed in the fall of 1994.

The first question answered was, do guides hurt? A total of 844 questionnaires were mailed out, with a return of 27%. 225 returns were usable for data analysis. Of the 225 usable returns, 11% of the respondents had no pain and no numbness. All replies from guides who did not work the 1994 season were dropped to screen out guides who might have only done one trip years ago, etc. Of the 164 replies from guides who worked the 1994 season, 10% of the respondents had no pain and no numbness. 16% of the respondents either came to the Canyon with a preexisting condition, or had a traumatic accident in the Canyon. 74% (n=121) of the respondents who worked the 1994 season with symptoms of pain and or numbness, had gradual onset of those symptoms after they began guiding in the canyon. Of this group, 68% said their symptoms are now with them year round. It should be noted that comparisons of the results of this survey to the guiding community as a whole must be done with much caution. A large number of surveys were not returned, and a very high percentage of those guides who did respond hurt. It could be that the rest of the 619 guides who did not respond did not hurt. Maybe they do. Either way or anywhere in between, the answer to that question is not the purpose of this study. What this study does is to look at the 225 replies returned.

In order to make sure that the replies were reflective of average age and gender distribution across the guiding community as a whole, information on gender and age distribution was requested from four outfitters for guides who worked the 1994 season. This information (n=115) was compared to the same information from the survey returns (n=164). A match of 96% for gender and 95% for age distribution was realized. With this in mind, though this study may not be representative of the guiding community as a whole, the survey represents as close a cross section of guides from the general community as could be hoped for. The next question was, what did guides say hurt them most often? The replies were split into those guides with Pain/Pain and Numbness versus those guides with Numbness/Numbness and Pain. This was done to see what guides said caused pain versus what caused numbness. To answer this question, information was used from the 121 guides who worked the 1994 season with gradual onset of pain and or numbness that developed in the canyon. The three activities that most often caused respondents pain and or numbness were rowing, put-in/take-out rigging and daily loading/unloading. See table 1.

THE ONE ACTIVITY MOST OFTEN CAUSING PAIN OR NUMBNESS

<u>ACTIVITY</u>	<u>PAIN</u>	<u>NUMBNESS</u>
Put-in/take-out	27%	5%
Daily loading/unloading	25%	5%
Rowing	27%	56%
Sleeping	0%	21%
Paddle Captaining	3%	5%
All other	18%	8%

Then to answer the last question, where do guides hurt? The information from guides regarding what hurt them most often indicates put-in/take-out rigging, rowing and daily loading/unloading troubled them most, as seen in the answers to question #2. Table 2. is a list of the most often indicated locations of pain and or numbness from the body diagram on the questionnaire, based on which activity the guides said most often hurt them.

Table 2.

<u>ACTIVITY</u>	<u>LOCATION OF PAIN/NUMBNESS</u>				
	<u>PAIN</u>				<u>NUMBNESS</u>
	<u>LOW BACK</u>	<u>UPPER BACK</u>	<u>SHOULDER</u>	<u>HAND</u>	<u>HAND</u>
Rowing	62%	0%	0%	38%	90%
P-in/take-o	90%	0%	30%	0%	0%
Daily Load	100%	29%	0%	0%	0%

Well, that's that. Simple answers to simple questions you already had the answers to. Or are they. Sure seems like a whole lot of guides who took the time to fill out this questionnaire are hurting. Many guides also wrote in a line or two. It might be appropriate to address some of your comments, of which there were lots of good ones.

There were comments on rigging and daily loading, some quite harsh. As was shown out by this study, this area is in greatest need of review and transformation. Those guides and companies that are actively working in this arena with the use of such equipment as forklifts, rig trucks with lift gates and trailers to carry partially rigged boats, should be encouraged in their efforts.

Then there were comments about pins/clips versus oar locks. Seems for every guide who swore by pins/clips, just as many stood by oar locks. It should be noted that both rowing styles require loading the wrist during the push stroke. Wrist and hand complaints may be due to lack of hand padding, oar grip to hand size differences, oar lock stop position and oar lock angle placement, rather than using pins/clips or oar locks. What guides did agree on was changing their rowing style to reduce their symptoms, one way or another.

What these guides said is that this job puts stress through their backs and hands. In order to not blow out those backs and hands, here are a few suggestions you've probably already heard:

Mind it when you lift. Don't jerk stuff around.
 Get help with the unit.
 Get help with anything else that's heavy.
 Change where you put your oarlocks. Try some oar grip padding.
 Change what you do when you row.
 Jumping off boats, especially while carrying stuff,
 can end your career.
 Talk this stuff over with your fellow guides.
 Share your good ideas.

Utah Rivers Conservation Council

The Utah Rivers Conservation Council (URCC) has been formed to ensure that our free-flowing river ecosystems receive protection. Through grassroots advocacy, agency participation, and service learning the URCC facilitates public involvement to ensure river ecosystem protection.

Currently, Utah is at a critical juncture for its free-flowing streams and river. The Central Utah Project (CUP) threatens to dewater half a dozen streams and creeks to provide water for theoretical users. With a price tag of nearly 3.5 billion dollars, the still unfinished CUP will provide some of the most expensive water ever delivered.

Sixteen dams throughout the Virgin River Basin are being proposed to water golf courses in St. George. Most of the basin is in Washington County, which has more endangered species than any other county in the state.

To learn more about URCC or to become a supporting member please contact:

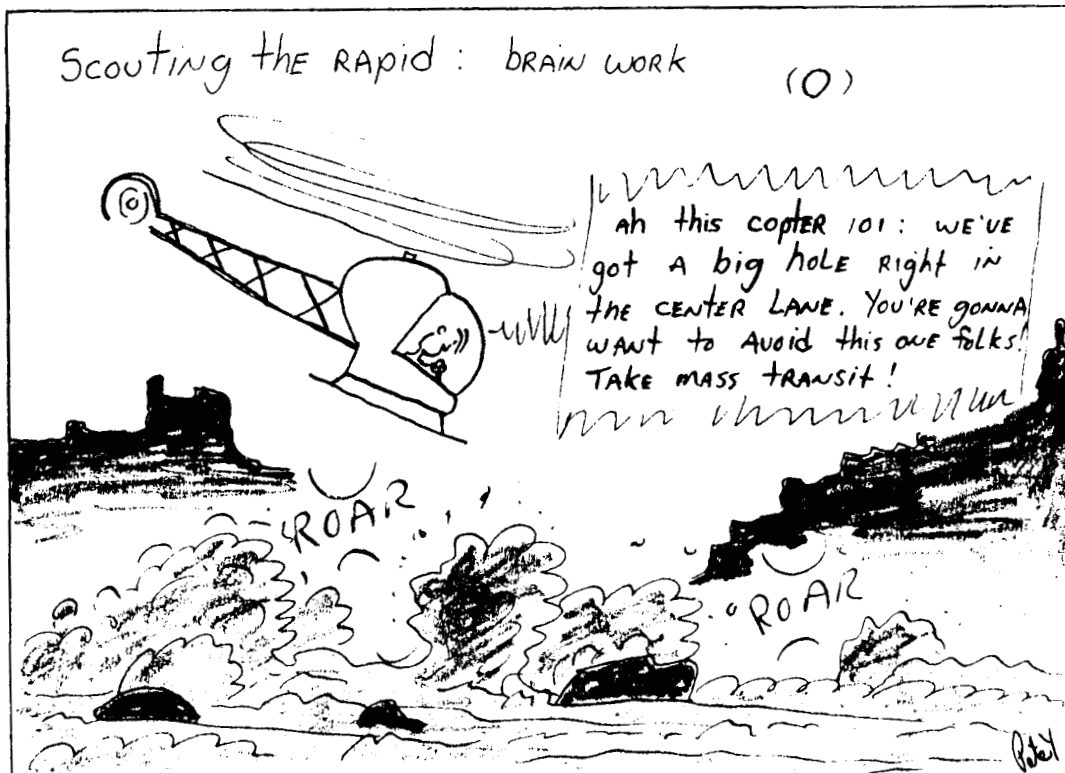
Zachary Frankel, Director
 Utah Rivers Conservation Council
 1471 South 1100 East
 Salt Lake City 84105
 801 486-4776

The bottom line is it's you out there in your boat, day in, day out. If you protect your body, you protect your fellow travelers, and you protect your career.

If you would like a copy of the final paper, please write to:

Tom Martin
 Physical Therapy Department
 Northern Arizona University
 P.O. Box 15105
 Flagstaff, Az 86011

This has been both a painful and numbing project to work on and never would have happened without a joint effort between Grand Canyon River Guides and the physical therapy department at Northern Arizona University. Thanks go out to R. Rakestraw, C. Hanson, J. Lee, M. Becker, S. Trimmer, S. Jones, G. Rink, L. Stevens, K. Knapp, Dr. T. Myers, D. Borden PT, M. Cornwall PT PhD, M. K. O'Rourke PhD, and her computer crew, J. Stratton PT, C. DeRosa PT PhD, R. Dale, B. Gloeckler, G. Schniewind, C. Stavely, O. Dale, B. Dimock, J. Ledbetter, S. Murphy, and K. Grua.



Subdivisions of Geologic Time

Canyons are time designated from representations of oldest to youngest rocks with the Quaternary Period exempted.
Modified from Izett and others, 1980.

Eon	Era	Period	Epoch	Age in m.y.a.		
Phanerozoic	Cenozoic	Quaternary	Holocene	0.010	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="width: 40%; border-right: 1px solid black; padding-right: 10px;"> <div style="margin-bottom: 10px;">Deso/Gray</div> <div style="margin-bottom: 10px;">Labyrinth</div> <div style="margin-bottom: 10px;">Stillwater Cataract</div> <div style="margin-bottom: 10px;">Grand</div> </div> <div style="width: 55%; padding-left: 10px;"> <div style="margin-bottom: 10px;">Canyons through the Uinta Mountains</div> <div style="margin-bottom: 10px;">San Juan</div> <div style="margin-bottom: 10px;">Westwater</div> <div style="margin-bottom: 10px;">Dolores</div> </div> </div>	
			Pleistocene	2		
		Tertiary	Pliocene	5		
			Miocene	24		
			Oligocene	38		
			Eocene	55		
			Paleocene	63		
			Cretaceous	Late Creta.		96
				Early Creta.		138
	Jurassic	205				
	Mesozoic	Triassic	240			
		Paleozoic	Permian	290		
			Pennsylvanian	330		
			Mississippian	360		
			Devonian	410		
			Silurian	435		
			Ordovician	500		
			Cambrian	570		
			Proterozoic	Protero. Z		800
Protero. Y	1600					
Protero. X	2500					
Archean	Oldest known rocks in U.S. --		3600			

Climatology of the Great Basin Desert

by John Weisheit

Introduction

The Great Basin Desert is a geographic and cultural domain that comprises about 400,000 square miles of western North America between the Sierra Nevada and the Rocky Mountains. It includes all of Nevada and Utah, most of western Colorado, and portions of southern Oregon, Idaho and Wyoming; as well as eastern California, and northern Arizona and New Mexico. However, the bottom of the Grand Canyon is classified Sonoran Desert.

There are three climatic regimens generally accepted for the Great Basin Desert for the Holocene (Recent) Epoch of the Quaternary Period. The first stage was the Anathermal, about 7000 to 5000 B.C., with a cooler and moister climate than present. This was followed by the Altithermal, about 5000 - 2500 B.C., which was markedly hotter and drier than present; ocean levels were about 30 feet higher than they are today. Lastly is the Medithermal of 2500 B.C. to the present and similar to recent conditions.

The Great Salt Lake

The first professional monograph ever published by the United States Geologic Survey was about The Great Salt Lake and was written by Grove K. Gilbert. One of the focuses of Gilbert's study was concerned with historic lake level fluctuations. As the characteristic glaciation of Pleistocene Epoch ended, evidence indicates that the ancestral Great Salt Lake, called Lake Bonneville, had a maximum depth of more than 800 feet. The Great Salt Lake presently has a depth of about 15 feet. About 14,000 B.C., Lake Bonneville overflowed catastrophically through Red Rock Pass into the Snake River and almost immediately dropped 350 feet to form the Provo strandline (a perched shoreline). By 9000 B.C., with the climate becoming ever drier and warmer, lake levels had fallen to within its present elevation.

Since the demise of Lake Bonneville, core sample analyses of The Great Salt Lake reveal a history of lake oscillations with relatively high lake levels occurring soon after the fall of volcanic ash from eruptions. Mount Saint Helens being the most active of the Holocene eruptions.

Ancestral Flora and Fauna

Plant assemblages of the Late Pleistocene and the Early Holocene Epochs can be reconstructed from the dung of extinct or extirpated fauna found preserved within the dry caves of the Great Basin Desert. Examples of such animal species would include mammoths, sloths and bison. This also includes the data derived from the analysis of wood rat middens. Both single-needle piñon and giant sequoia were more widely distributed in the southwestern Sierra Nevada. Spruce, limber pine, Douglas fir, and dwarf juniper all grew together in Canyon de Chelly, northeast Arizona and

southeastern Utah. By 6500 B.C., current plant assemblages had established themselves into our study area as ancestral assemblages retreated to higher elevations. Relict sites are with us today, such as: the Douglas fir stand observed from the terminus of the Shafer Trail, Island in the Sky District of Canyonlands National Park. The mammals that became extinct or extirpated were replaced by antelope, mule deer and big horn sheep. Local migrations to high alpine elevations would include such species as the pika and the marmot.

Stream Bed Morphologies

Holocene climate changes are also evident in stream channel morphologies of the Great Basin Desert. Montezuma Creek, an ephemeral tributary of the San Juan River, comes to mind as a good example for me. Aggradation of valley sediments have occurred from the end of the Ice Age up to the Altithermal period. During the arid conditions of the Altithermal, erosion carried away much of the accumulated valley fill, leaving a terrace that can be 20 to 30 feet above the stream channel. Intermittent aggradation has occurred since the Altithermal, only to be scoured away by droughts such as the one that occurred during The Great Abandonment of the Formative indigenous cultures (1200 - 1300 A.D.). An example of aggradation has since occurred and is called the Little Ice Age, which ended about 1860. Aridity from 1880 to 1920 renewed valley degradation; probably aggravated by the overgrazing of stock animals -- but not to be considered as a sole cause.

Conclusion

Despite media warnings for global warming, typical warming and cooling trends will probably continue for our Quaternary planet. Such short-term trends seem to be triggered by sun spot activity or by volcanic eruptions. On the long-term scale, historic climate for the Cenozoic Era have also been analyzed from stable isotope samples from Antarctica. Results indicate a hothouse effect from the Middle Paleocene to the Middle Eocene Epoch -- or from about 60 million to 40 million years ago. There was an icehouse effect during the Oligocene Epoch, which brought about the first evidence of a continuous ice sheet for Antarctica. A warming trend occurred in the Middle Miocene of about 17 million years ago; returning to icehouse conditions by the Late Miocene -- or about 5 million years ago. A slight warming trend did occur in the Pliocene before dipping into the Pleistocene Ice Age.

For more information on this subject, I recommend the following publications:

1. *Handbook of North American Indians. Volume 11, Great Basin.* Warren L. D'Azevedo, Editor. Smithsonian Institution.
2. *A View of the River.* Luna B. Leopold. Harvard University Press.
3. *Historic Channel Change of Kanab Creek.* Robert H. Webb, et. al. Grand Canyon Natural History Association.

Wandering on the Watut

by Tim Thomas

Zamon, my Kiwi friend from New Zealand (N.Z.) and I were taking a few weeks to explore parts of Papua New Guinea (PNG). I'd met Zamon through the University of Auckland Canoe Club during a three week kayak trip I took with the club in December, 1987. We rendezvoused in the capital, Port Moresby, in May to do some kayaking, backpacking and exploring. We were three weeks into our vacation and were on our way back to Port Moresby from the Highlands when we stopped at an acquaintance of Zamon's parents in Goroka. We were hoping to do a short kayak run nearby and climb Mt. Wilhelm, PNG's highest peak at 14,793 feet.

After a successful cloudy summit of Mt. Wilhelm and a fun kayak run past a lot of surprised villagers, Zamon and I were about to return to Port Moresby to leave PNG when Peter, our host, asked if we'd be interested in a Watut river trip. Unfortunately Zamon had to get back to school in N.Z. and my visa was almost up, but encouraged by Zamon's zeal on how wild the Watut was, I decided I'd find a way to stay and run the river.

As I waved goodbye to Zamon at the local airstrip (an event incidentally that draws crowds of villagers to watch), I really started wondering just what I had gotten myself into. All I knew, so far, was what Zamon and Peter had respectively told me of Class IV-V big water rapids, crocodiles, dense jungle, remote villages, and of a four person trip, a guide flying in from the U.S., pre-arranged logistics, and a free trip for me! Piece of cake. Watching the plane disappear, I turned to focus on the task at hand - goin boatin!

The Watut was first run by white guys in rubber boats (Richard Bangs & Company, founder of Sobek) in the late 1970's. The river has drops of 20 meters per kilometer, as opposed to the Colorado in the Grand Canyon where Lava drops about 12 meters in a kilometer. Rapids such as "Bikpela" (big rapid), "Barap" (?), and "Harmony" belie the force of these drops. The Watut is drained by the Kuper Mountains in the Highlands and converges with the Markham River to dump into the Huon Gulf at the port city of Lea. Flows on the Watut can reach 20,000 cfs in rainy season. After its confluence with the Markham, flows can exceed 100,000 cfs at the Gulf of Huon.



Villagers on the Watut River, Papua New Guinea.

Photo by Tim Thomas.

The next day, I found out just what I'd gotten into -- Peter was leaving the country on business before our trip departed; the "head guide" was arriving from the U.S. the following day and had never been to PNG much less seen the Watut. The clients (2-Americans, 1-British, 1-Canadian) were arriving in four days, and we didn't have enough time to run the Watut before our trip. But there was a Peace Corps woman in town who'd run the Watut and could give us some tips on what to avoid. Let the adventure begin! (Wasn't Chinourd who said: "Adventure begins when the shit hits the fan.") We, Peter's local right-hand man Willy and I, found Michael our head guide in Lea the next day. Michael arrived with the normal jet-lag associated with a 24-hour flight direct from the U.S. on Friday. We took him back to Goroka where he had a restless nights sleep being woken numerous times by gunfire nearby. Saturday morning we heard that three villagers had died in drunken brawls -- the aftermath of pay day. Welcome to New Guinea!

In the following days we managed to figure out most of the trip logistics: food, gear, transport... only two small details -- when and where were we to meet our guests, and where's that woman who knows the Watut! In a last day frenzy before put-in, we rounded up our four guests in Lea after some resourceful detective work and numerous trips to local hotels. And we found our woman of the Watut. She told us to watch out for Harmony (a four-part rapid), it's about two miles down stream of our second "good" hanging foot bridge but before the big waterfall. Okaaay. And take some goodies (newspaper for rolling tobacco, matches, candy for the kids...) for the villagers along the way, it helps ease relations. Oh, and be sure to find a villager with a dugout and motor to help tow and guide you off the Markham, it braids something fierce and you don't want to go

the wrong way. And, of course, keep an eye out for crocks below the last rapids. Got it!

Fully prepared for what lay ahead, we loaded up our two 18' Domars at the put-in and quickly discovered we had a few extra challenges. We had low water and about two to three miles of pin-balling, high-centering, dragging, and cussing before we picked up some side streams and more volume. We also discovered our groups abilities: one very nice and very overweight woman with a sprained ankle (Connie), one strong contractor with enough rafting experience to be dangerous (Jamie), one middle-aged travel writer of self-renown (Wally), and one guy who came to visit his friend, who ended up being so busy he sent him on our trip instead (Ian). Too late now, five days and some 80 miles later, with any luck, we should pop-out of the jungle near Lea!

Our trip had a few itinerary points I wasn't quite comfortable with; primarily that we had to be in Lea in five days to catch some international flights. Besides that, we were supposed to arrange a night-over in an unspecified village along the river. And lastly, that tow-out by a dugout on the Markham. The time constraint bothered me because of the low water, a lot of class IV-V rapids and not knowing exactly where we were at any given point in time. The village stay should be OK, I had the "goodies" to give them and Zamon had taught me some "pig-english", PNG's version of English where there's over 700 different local dialects. Never mind that the Highlands of PNG had the last major undiscovered (by whites) population on the planet, which was contacted in 1935 by Australian gold prospectors. Oh yes, cannibalism is "illegal" in PNG now. As for the tow-out, I had cash, my pig-english (I'd been practicing my line; "We want kissim some pla bikpela boat, go long Lea"

which roughly translates as: "I need a big boat to get to Lae") and I was pretty sure I'd recognize the dugouts and crocks below the rapids.

Back to day one, we had sunny skies, the water picked up volume and we had an uneventful first night's camp. Day two, another beautiful day, the canyon deepened, occasional side streams and waterfalls joined the river, we ran a few class III or so rapids and made camp on a ledge boarded by thick jungle. That night, we were visited by a family of gold prospectors (surface gold and alluvial gold was plentiful and worth a lot) who spotted our camp



and came by to say hi. We spent the evening exchanging wares, all by sign language as they knew no English and after they'd oogled our equipment and supplies, we figured out that we could get two bracelets, a necklace and a straw hat in exchange for a flashlight, a baseball cap (Mets), some cookies and my T-shirt. Hell of a deal! It was great. That same evening, we confessed we'd never been down the river before; primarily because Jamie was on to us after I said, "Bikpela's another couple of miles" and we rounded a corner and almost flipped in Bikpela. But we did have some good notes from a reliable source!

Day three brought us to Harmony about noon. We had successful runs in Part 1 and 2 but scouting Part 3 proved discouraging. Our beautiful weather had not helped river levels and the run described as, "a left run with lots of big holes", turned out to be an unrunable rock garden. After scouting the 100 yards of Part 3, Michael was of the opinion we should portage. With Connie barely able to walk unaided through the boulders, and Wally being only marginally better himself, that left only four of us to portage our two boat trip. We still had Harmony Part 4 to contend with and a few more rapids after that before our camp. And in the tropics it gets dark at 6 p.m. sharp!

To me it was obvious we weren't going to stay on schedule, or even finish Harmony before dark if we portaged. So, I grabbed Jamie and Ian (Wally was helping Connie walk the rapid) and decided to give the right run a try. It had enough water and was clear except for a small log broached across the channel and at the bottom the flow dropped 4-5 feet through a chute directly toward a wall with a tight left turn thereafter. I tried to power over the log, which was partially submerged, and succeeded in dislodging it as

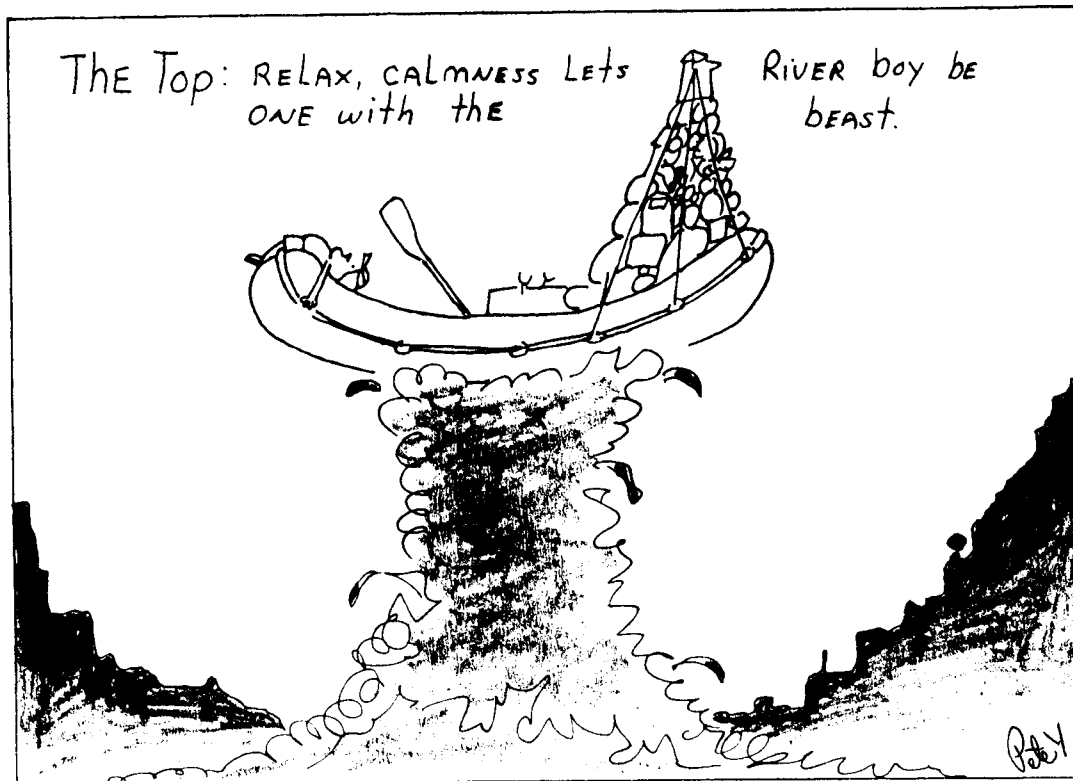
it swung into an eddy. I straightened out just in time to go over the drop and slam into the wall, spun and pulled left and even made it to shore! A jubilant Michael then asked if I'd mind rowing his boat through. So he, Jamie and I did a second successful run.

It was 5:00 p.m. when we pushed-off to run Part IV and I almost wrapped trying to miss a boulder I should of easily missed. I'd put out too much in Part 3 and didn't realize it. I ended up stuck for about 20 minutes at the bottom of the rapid and gladly let Jamie row after that -- I was spent. It was almost dark and with no camp in sight and light fading fast when we decided to line the boats down the bank in search of a camp. Finally, we found enough of a clearing in the bush to put up a few tents; Michael and I cooked and slept on the boats that night. Whadda day!

Day four we ran a few more rapids and passed our intended camp of the previous night just before emerging from the river gorge. Now it was time to find a village and arrange an overnight there. We pulled up to a village about 3 p.m. and instantly got mobbed by the village children who were amazed at our presence, our boats, our color (Connie had on neon-green zinc oxide), and just about everything else we had or were. Meanwhile, I attempted communicating our desire to spend the night and proceeded to offer the goodies I'd brought. Well, to this day I still don't know what I did or didn't say or do, but I had one majorly pissed-off villager yelling unknown goodies of his own at me. So I beat a hasty retreat to the boats, tossed all of the candy I'd brought for the kids as a diversion, and headed down stream.. "So what did they say" asked Michael, "Don't know and don't wanna know", I said. Needless to say, I told everyone else that some previous rafters had probably angered the village chief by offering him damp matches or

something and I knew a great beach just below here. Luckily, the kids mob scene was enough of a village experience for everyone and we did find a good beach not too far away to camp.

Day five we shoved off, myself with much anticipation in search of a dugout to help us off the river. After a few stops at villages along the way, we finally found a willing soul who understood my pig-english (or the cash I held out) and proceeded to load our trip including the boats and frames into his 35 foot dugout! His boat and motor were one of the few that actually ran and



supplied the isolated villages with supplies from town. Our driver later inquired where we stayed the previous night and after I told him he proceeded to inform me that crocks had taken three village children from that same area earlier in the year. I never even saw the critters! But, as we motored out to Lae, my job done and no one hurt or missing, I started relaxing for the first time in five days and noticed a few long, scaly forms slipping into the water as we passed.

Well, that's about it. Everyone made their flights and professed to having a wonderful trip. Wally later wrote a newspaper story about our trip -- amazing how different his perspective was of the same journey. But one thing remained constant throughout our trip -- "ignorance is bliss". Had all involved been fully informed of the trips risks and unknowns, we'd all of probably ended up drinking umbrella drinks in Lae. But what kind of story does that make! So what's your story?

Tim Thomas is the vice-president of Colorado Plateau River Guides and the river coordinator at Canyonlands Field Institute. Tim is presently on a well deserved Grand Canyon private trip. We would like to give a special thanks to him for his energy and commitment to CPRG!

A New Book

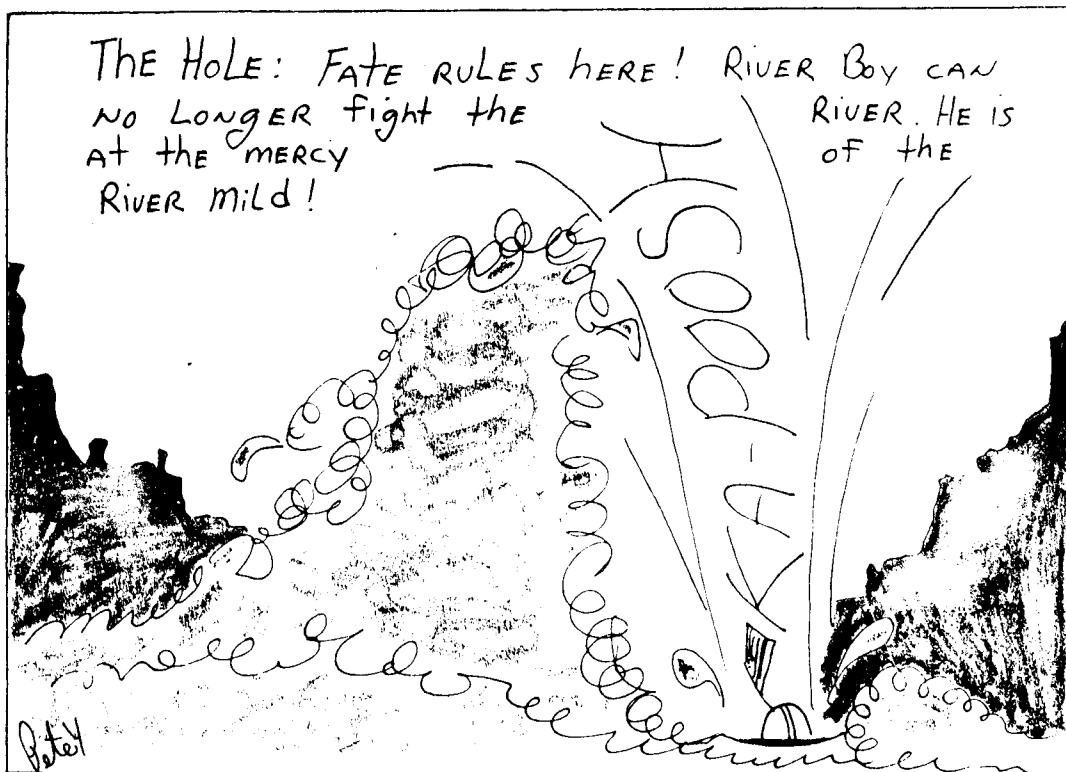
Coyotes and Town Dogs Earth First! and the Environmental Movement

by Susan Zakin

Called "a fascinating, sometimes hilarious, sometimes appalling tale,*" COYOTES AND TOWN DOGS chronicles the origins, exploits, and ideas of the century-old environmental movement's most radical wing, the hip cowboys of Earth First! The story is told against the backdrop of landmark legislative battles, including: passage of the Wilderness Act and the National Environmental Policy Act; formative struggles over dams in Dinosaur National Monument, the Grand Canyon, and Glen Canyon; and the painful and divisive attempt to save the ancient forests of the Pacific Northwest. Interwoven with this narrative are profiles of conservationists who changed the way we look at landscape, from John Muir to Celia Hunter, the first woman to head a national conservation group. Along with solid history and first-rate political reporting, COYOTES AND TOWN DOGS tells of the adventures of a new breed of environmentalist, men and woman who risked everything for their romantic vision of the American continent.

*The Arizona Daily Star

A former newspaper reporter, Susan Zakin has written for numerous newspapers and magazines, including The New York Times, Outside, Mother Jones, Sierra, and Vogue. She covers environmental politics for Sports Afield, and has taught journalism at the University of Arizona. Send orders to: Consumer Sales Penguin USA, P.O. Box 999, Bergenfield, NJ, 07621, 1 (800) 253-6476, \$14.95 plus \$2.00 shipping and handling.



The Dominguez Reservoir Project

by Norm Mullen and Lenore Styler

From an article that appeared in *Confluence*, the journal of Colorado Rivers Alliance. Used by permission.

The Dominguez Hydroelectric Associates and Western States Water and Power, Inc., have filed a petition with the Federal Energy Regulatory Commission (FERC) for a permit to construct a 250 foot high dam on the Gunnison River downstream of Delta.

The project would have a 38 megawatt powerhouse and a 38,000 acre reservoir on a mesa above the river. A 1,000 foot long penstock would connect the two reservoirs.

Water would be pumped from the lower to upper reservoir, and then released through the penstock, where eight generating units would produce 1,000 megawatts, enough to power a major city even though, as of 1990, there was no demand for the water or power.

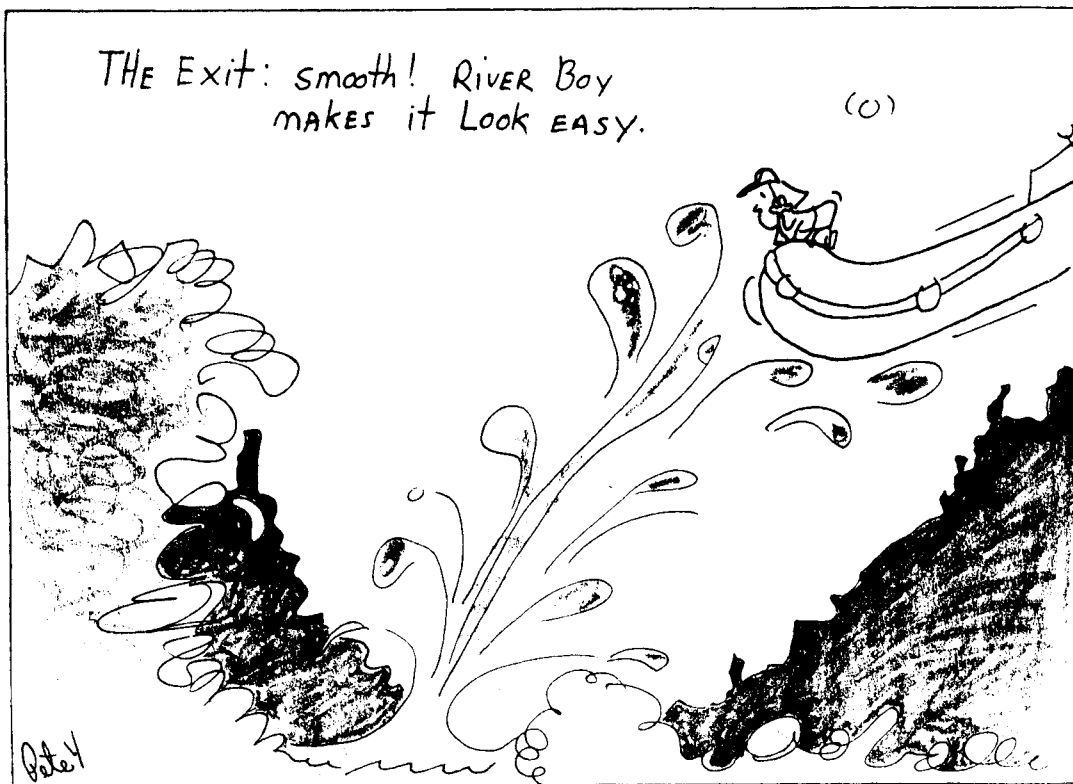
The questions are: How will this project affect resources that are not "private property" or "private rights"? What "market" is being served, and at what real price?

The dam would flood about 27 miles of the Gunnison River, a popular canoeing area. It would inundate part of the lower Dominguez Wilderness Study Area managed by the BLM. (At 87,000 acres, Dominguez, the largest potential BLM wilderness in Colorado, has been recommended for wilderness protection by the BLM as well as Colorado Environmental Coalition and 47 other groups.)

This stretch of the Gunnison River has also been designated as critical habitat for four endangered species of fish within the Colorado River system.

Note: Public input on whether a FERC preliminary permit should be granted will be accepted through March 27 by the Secretary at the Federal Energy Regulatory Commission, 825 North Capitol St., N.E., Washington, D.C. 20426.

[Though the public comment period is over, CPRG recommends writing to FERC to be on the mailing list for updates, EIS studies, and etc. This dam may well create daily river tides in Westwater and Cataract canyons in low water months.]



From the Eddy

by John Weisheit

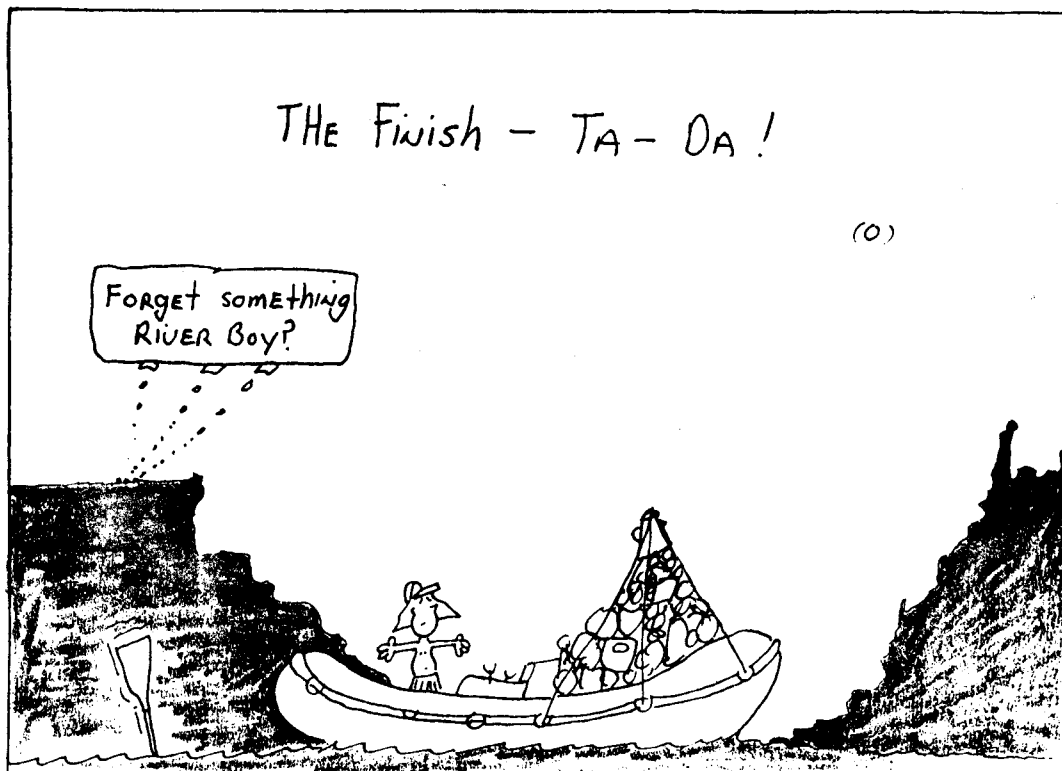
Susette and I went to Denver last March to pick up some new boats for the company we work for. As we went through Vail Pass, we said something to the affect that we weren't going to have much of a spring run-off and it would probably be accompanied by extremely hot and windy days. Three months later, not only do we have new boats to row, we ended up with the highest water ever since 1984 and the weather has been cool and only somewhat windy.

I was in Cataract in a row boat on the peak a couple of days ago, which was 78,500 cfs. Knowing that the private sector was having a 20% success rate and the commercial sector a 60% success rate in row boats through the Big Drops, I decided to use every trick ever learned from the Cataract Canyon boat yogies I have been privileged to work with through the years. That cumulative energy worked to my advantage! Thanks guys and gals -- you know who you are and you are the best -- making it safe and fun in the really high and the really low.

High praises also go to the river district crew at Canyonlands National Park. They made a fly camp below Rapid #26 and were in position at the bottom of Big Drop III in their Zodiac to help out with all those flipped boats and to make immediate radio contacts with the emergency medical teams when necessary. I for one was glad to see them and couldn't help but think of them as guardian angels (actully goal tenders in a hockey game). It would be tough duty on equipment and personnel to be there in such a capacity. Thanks NPS!

This is a great opportunity for CPRG members to send in their stories about their high water Cat trips. Whether the contribution is large or small, I will put it in THE CONFLUENCE. It would be especially fun to hear what you think the height of the "Red Wall" was at Big Drop II. I didn't see it on my particular trip as I was quite engrossed in a downstream ferry. I will say that I felt my stomach drop and I could swear my ears popped! The motor support crew said three boat lengths, which would make a 60 foot hypotenuse. Please tell us your story -- we really want to hear from you.

Vaughn Short has a new poetry book out called Two Worlds / Recollections of a River Runner. I bought my autographed copy at Back of Beyond Books here in Moab and have been enjoying it immensely. Vaughn makes a wonderful tribute to Michael Jacobs in this book, a Grand Canyon boatman who died from injuries related to a fall while climbing in the Tapeats sandstone near 120 mile. I never met Michael, but have come to know him through his friends. For those of you who too who did not know Michael, you might be interested to find out he started as a Tag-A-Long employee doing the Utah river scene. Bob Call once related a story to me about Michael that might serve as a window into his personality. Seems Michael bought a new Gortex jacket when the product first became available. While at The Confluence it started raining hard (a nice place to be when the waterfalls come off the Cedar Mesa sandstone) and to his dismay the jacket failed to keep him dry and comfortable. Without saying a word, he threw his new jacket into the river and proceeded to enjoy the rain.



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Colorado Plateau River Guides

P.O. Box 344
Moab, UT 84532
(801) 259-8077

To preserve the integrity of your CONFLUENCE, please make a photocopy of this page.

- I would like to join CPRG. Enclosed are my dues.
 I would like to renew my membership to CPRG. Enclosed are my dues.
 I would like to give a gift membership to a friend.

Membership dues:
(Please check and write a check:)

- () \$20 per year.
() \$100 for 6 years.
() \$195 for life.
() \$295 Benefactor.

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- () Guide Member (Must have worked in the river industry.)
() General Member (Must love the Colorado Plateau.)

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