

**First Descent and Geological Reconnaissance of the Yangbi and Mekong Rivers  
Yunnan, China, November, 1994**

**Pete Winn**

Photos by Ben Foster



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This is a long journal, but worth reading if you're planning on joining a first descent in China. Three rules: Patience, Patience and Patience. The Chinese have a different perspective on time compared to Americans and Europeans.



One of the oarsmen, Will Downs (in front), died of throat cancer on December 30, 2002. He was one of those unforgettable characters we occasionally meet before we too pass on to the Flip Side.

### Summary

Dates: November, 1994 (10 full river days)

Nearest major airport: Kunming, Yunnan (southwestern China)

Round trip driving time: 3 days

Put-in: Bridge about 15 miles west of Dali, elevation 4500', flow about 2,500 cfs

Take-out: Man Wan Dam, elevation 3400', about 3,000 cfs

Total distance: 100 miles (10 miles per day)

Average gradient: 10 feet/mile

Participants: 8 total using two 16' catarafts and 3 hardshell kayaks

Grade: Two Class IV's, mostly Class II-III

### November 3

I left Grand Junction for China with mixed feelings. I'd dreamed of running rivers in China since the early 1970's, before I married Cindy, and had been planning this trip since our son, Travis, was baby. Mike Connelly and I had conceived of the idea on a 1984 Green River trip in Dinosaur National Monument on mountain building processes that we ran for National Geographic Magazine. Now that our expedition appeared to be finally happening, I had a wife, a 10 year old son and a 5 year old daughter (Carmen) who I'd dearly miss, and who would certainly miss me. I really don't think they wanted me to go, partly because they were afraid I wouldn't make it back.

I was going to spend ten days kayaking a wild river in a remote part of China that no one had ever floated before, and I hadn't done any serious kayaking in a dozen years. In fact, my last big kayak expedition was though the Grand Canyon in 1982, and I had failed to roll - in other words, I went for a swim - in the two biggest rapids (Crystal and Lava - I went for the big waves). I really didn't know if I could roll in a rapid any more. But after 20 years of dreaming and 10 years of planning, I just had to go. I willed myself to believe that kayaking was like bicycling - once you've learned, you never forget, but

I had learned over 25 years ago! I was way past my prime.

In addition to the river safety issue, we were going to run a river in the middle of one of the most seismic areas of the world. In fact, in 1988, while we were trying to raise funds for the expedition, 7.4 and a 7.6 quakes struck within 10 seconds of each other, just 100 miles to the south of the Yangbi-Mekong confluence, killing hundreds of people and leaving 10,000 homeless. I wondered what a river tsunami would be like. One of the main reasons for our expedition was to study large, active faults; hopefully they would be inactive while we were studying them.

A old saying kept running through my mind - What are the three rules of success in doing business in China? Patience, Patience and Patience. I had lots of Patience. I'd lost it many times, and kept finding more. I hoped my family would be patient with me and my obsession. If the trip was a success, I was going to take Cindy, who is an experienced river guide, and the kids on a future trip. It was too risky for Cindy and I to leave the kids behind on this first trip, and certainly not a good idea to take them with us, even though they were seasoned river runners considering their ages.

November 4

I met Will Downs (a paleontologist from Flagstaff) in the LA airport. He and I first met twenty years ago on a Grand Canyon trip, when I worked as a National Park river ranger and he was collecting some of the oldest fossils in the Canyon. Will had been to China many times, looking for early mammal fossils, and besides being an experienced river guide, he spoke, read and wrote Chinese. It was an easy flight. We left LA on Nov. 3 at 11 pm, and it was dark until we arrived at 7 am Nov 5 (we crossed the International Date Line, losing a day), so we got lots of sleep on the 15 hour flight to Hong Kong.

However, sleeping sitting up is fitful, and I had lots of time to worry about things that could go wrong. I knew the equipment was there because I'd just returned from Kunming on other geology business a week before, but I feared the Chinese would tell me it was missing or stolen. And if it was there, did we really have the permits they promised us? We'd paid a small fortune in permit fees in advance, and I was afraid they'd blackmail us for more. All I had was a three year "fax" relationship with an otherwise complete stranger who worked for the Chinese Academy of Sciences (CAS) in Beijing, or so that's what their letterhead said - some guy named Han Chunyu who wrote good English, claimed to be a geomorphologist and sounded credible. After a while I gave up worrying, I couldn't even figure out what time it was.

November 5



We walked through Customs at 7:30 am and within a few minutes Ben Foster (a climatologist from Boulder) and my partner Mike (a hydrologist from Hanford) found us. I had made reservations at the airport hotel so the others wouldn't have to fool with taxis and luggage. Mike, Ben, Peter Molnar (a geophysicist from MIT), his wife Sara Neustadt (a cultural anthropologist), and Ralf Buckley (a geomorphologist from Gold Coast, Australia), had arrived the night before. By 8 am all of us were together, with all our luggage, a good beginning. Ralf, who had met Ben and Will on a Westwater trip in August, met Mike, Peter and Sara at an early breakfast by accident, when Ralf, with his Australian accent, was telling the waiter why he was in Hong Kong. Not too many folks pass through Hong Kong on their way to run rivers in China. Mike and Ralf were also going to kayak, Ben and Will would each row a 16' cataraft, and Peter, Sara and Chunyu would ride on the rafts and help row in the easy stretches.

The only hassle we had was that the hotel not only wanted to charge \$200 per person (the published cost was \$70), but wanted to charge \$400 for each of the rooms I'd canceled when Steve Curry, a river outfitter who had run the upper Yangtze in the late 80's, had to cancel his plans to join us. Fortunately, we were eventually able to resolve our differences.

The flight to Kunming (two hours) was crowded but uneventful. At the airport, I finally met Chunyu Han (in his early 30's, spoke good English, and had Westernized his name by reversing the order, putting his family name last). We also met Luo Xuefa (also in his 30's, he spoke good English), our shore logistics manager, plus his boss, Wang Shide (50's, no English, but a great smile), and the Customs officer who arranged for our equipment to get through customs.

One of the last big hassles I'd encountered before leaving the US was a Chinese law requiring a large deposit (several thousand dollars) to get the rafts into China. It was new law that Chunyu was not aware of, and it took me a couple of days to find out from the US Department of Commerce that it really was a published tariff, the Chinese weren't just trying to screw me for more money. We'd get the money back when the equipment left China (yeah, sure, I thought). Chunyu had flown from Beijing to Kunming two days early to solve the problem, and found that the Kunming office of CAS had the connections necessary to waive the law. He faxed me the night before I left Grand Junction that we didn't have to pay the huge tariff. We paid a minor storage fee, and our equipment was promptly

delivered to the CAS office in Kunming.

That night we stayed at the Kunming Hotel. It had been rebuilt since Mike and I had stayed there on our reconnaissance trip seven years ago, and was as modern as any high class hotel in the US. We were all suffering a bit from jet lag, so we hit the sack early after dinner.

November 6

We spent the day in the courtyard of the CAS office, putting the equipment together, etc. Will, Sara and Xuefa went to buy fresh food, tea, noodles, rice and spices. Ben and I had roughly planned menus and Ben bought the dry goods in Boulder and shipped them over. After inventorying the food, the three of them took off with a sullen driver for most of the day. Mike and Ben assembled cataraft frames from photos Ben had taken at Down River Equipment in Denver (all of the rafting equipment was brand new). Ralf got the kayaks ready. Peter, Chunyu and I packed first aid, commissary, patch, inventoried dry bags, life jackets, checked tubes, etc. and loaded the truck. The only unpleasant surprise was that the glue for patching holes in the rafts had leaked out of the two containers, and the lids were glued so tight I couldn't get them off. Hopefully we wouldn't have more than two holes to patch, because I was going to have to cut the cans open to use the glue.

Remarkably, everything was ready to go by 4 pm except the second Chinese representative. We had told Chunyu we could take two Chinese geologists. The seismologist he invited just never showed up. Chunyu was concerned at first, but I told him it was his choice. If he wanted, he could bring anyone or no one. Will wanted him to bring an attractive woman (to keep Sara company, he said).

That night we had our welcoming banquet. They took us to the "Great World" restaurant for a fantastic meal and dinner show. Minority Nationality dancers and musicians entertained us for an hour, then had us sing Jingle Bells and dance a line dance. It was hysterical. I couldn't believe how well everything was going.

November 7

After a hassle with the bus driver, who was still in a bad mood and didn't want to go, we finally got off about 9 am. It turns out drivers have a lot of control in China. He was a good driver, didn't pass on curves and hills too often, etc., but he smoked and Will was the only one of us that did. For me, it was actually a miserable trip to Xiaguan (nine hours), mostly on bad roads, although there was a new toll road to Chuxiong, about 1/3 of the way. I had had back surgery twice (discectomies), in the late 70's and early 80's, and the potholes really hurt. Mike and I were both surprised by the amount of development that had occurred in Kunming and along the highway. The roads were crowded, and there were ten times as many gas stations as there were in 1987. We stayed at the Er Hai Hotel, same as in '87. It too had been rebuilt and was a decent place.

During the drive I realized I had wasted a lot of time worrying on the flight over. None of my fears had materialized. Our Chinese hosts were incredibly cooperative. So I began to think of some more reasons to worry. For some reason I had never worried about the rapids or about our health. Those were things I felt we could deal with. All of us were over thirty (most were over forty), long past our daredevil days. We had come prepared to line and portage unrunnable rapids if necessary, and we had an extra day or two built into the schedule if we had unexpected delays. We had good water filters, lots of Clorox to sterilize dishes, and we all knew the importance of practicing good hygiene and drinking only filtered

water and beer. We had good first aid kits, and several of us had some first aid training. We were all experienced expeditioners. So instead I worried about whether there would be enough water in the river to float the rafts, whether we could find campsites, and whether anyone would meet us ten days later at the take out.

November 8



Yesterday, during the drive to Xiaguan (near Dali, on the south shore of Lake Er), we discussed menus and decided to buy some more fresh food. So this morning after breakfast, we all went searching for a market (they're all open air street markets), and found a fantastic one not far from the hotel. After buying garlic (Peter), apples (Ralf), assorted vegies (Mike and Sara), Snake Wine (Will), citrus and bananas (Ben and I), we loaded up and started for the put-in. We got gas for the stove along the way and didn't stop until we reached the Yangbi. Along the way we noticed a disgusting amount of bright white foam on the creek flowing out of Lake Er, a tributary to the Yangbi. There are five dams along the creek, used to generate power, and the reservoir behind each was covered with foam. Stomachs were beginning to turn.

At the bridge over the Yangbi, the river seemed low but runnable, about 2500 cubic feet per second, with the exception of the first rapid, which was definitely a portage. Mike and I had seen this rapid in Nov '87, and Chunyu had seen it in Jan '93, and both times it had been runnable. Chunyu had sent us a photo of the rapid, confirming he had been there, and asked if we thought it was runnable. I wrote back and said it was runnable at that level, but we would portage any rapids that were life threatening. He wrote back and said don't portage for his sake, he would die for his country! Just below the rapid, the

lowest dam on the tributary from Lake Er was discharging foam into the river, and it was gross. We decided to go another 10 miles to the put-in and see how bad it was. At the put-in, a large creek joined the river, and the river seemed to clear up somewhat. Everyone but Sara was for going; she had mixed feelings. Peter and I talked her into it by promising only to use only filtered side creek water for drinking. However, the thought of rolling a kayak in it was disconcerting, even wearing a dry suit.



The put-in went fairly well, considering the cataracts had only been assembled once before, in the Down River warehouse in Denver. They had never been tested in white water, but Ben and I helped design them, and I had a lot confidence in the Down River folks (they sounded credible, and knew some of the same crusty old river guides that I knew). Ben had taken photos of how to assemble the rafts, but had forgotten to bring them. Fortunately, his memory is still pretty good (he's young, like me, only in his mid -forty's) and we rigged and loaded them in the hot sun in less than three hours. Off and running at 4 pm, into the Great Unknown, lots of rapids in a steep metamorphic rock canyon right off the bat.

Ben, with Peter and Sara in his raft, got the feel of rowing the new boats immediately, and had the illusion of control in the Class III rapids. Will seemed like he was experimenting, and had pinball runs. He claimed he was just getting the feel of pivoting and going backwards and sideways. The kayakers went ahead and signaled runs for the rafts, nothing worth scouting from shore. Within an hour we came to a boulder bar sieve that looked marginally runnable for the rafts, so we stopped to look at it. Rather than deal with a potential problem late in the day, we camped, lots of sand and firewood. Dinner also went well for a first camp, thanks to Sara, Ralf and Chunyu. What a relief! I've always believed the hardest part of running a river was getting there, and the second hardest part was planning, packing and preparing the meals. So far I was right. We were all so tired we went to bed as soon as it got dark, not caring where we were.

November 9

First full day, with a challenging rapid right after breakfast. Ben went first and got stuck on a rock for about five minutes, mostly a nuisance. Thankfully, the rafts are made of tough hypalon, and we didn't

need to use any glue. Will scooted though in style, in dramatic contrast to the afternoon before. We discussed calling the rapid Ben's Pride, but in reality most rafts would have gotten stuck. The water was low, a better name would be Hangup City. We were still grossed out by the foam, so we weren't sure if anyone would ever want follow us and need to know the names we gave the rapids. The rest of the day was fast water, lots of Class II rapids, with the canyon slowly opening up.

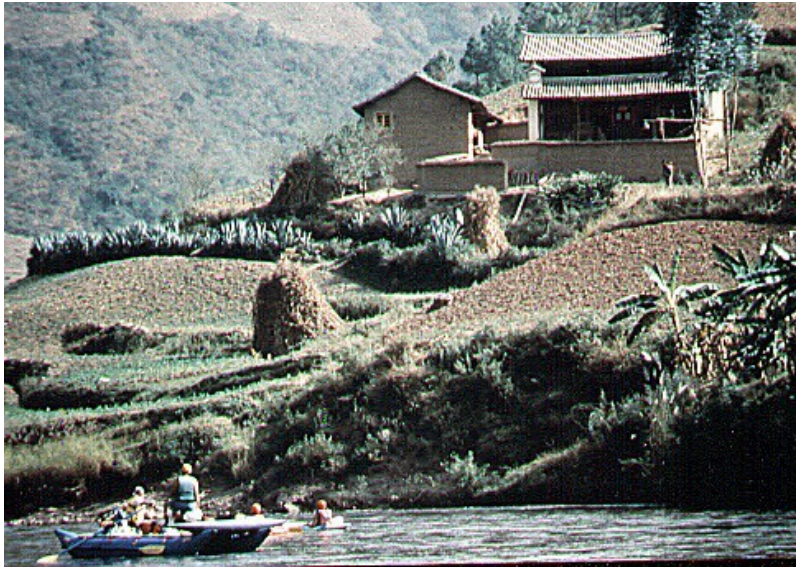
When Mike and I had first begun planning a river expedition in 1985, we had searched the geologic literature for the names of geologists who had done a lot of work in China. Peter Molnar's name kept popping up, so we wrote him at MIT with our ideas. We needed to find a runnable river without a road along it that was in a geologically interesting area. To our great surprise, Peter responded immediately, saying "You made my day!". Not being a river runner, he had no idea what rivers were runnable, but he did have some ideas about geologically interesting areas. Peter had specialized in the geological and geophysical evolution of the Himalaya Mountains, and had come up with many of the theories about the effect of India's ongoing tectonic collision with Asia. In the Yangbi - Mekong area, there was evidence of major displacement, on the order of thousands of miles, along huge, active faults such as the Red River and Nanding River faults. Our put-in was possibly near the upper reaches of the Red River Fault, and our takeout was probably near the upper reaches of the Nanding River Fault.

One of our big problems in planning and conducting the expedition had been obtaining good maps. Without good maps, you're basically lost. Based on some US Army topo maps made in 1943 to aid in construction of the Burma Road during WWII, we determined that the Mekong in western Yunnan should be safely runnable, there was no road along it, and Peter assured us the geology would be very interesting. The army maps were the only useful ones we could find, and we assumed they were accurate. Well, after one and one half days on the river, we couldn't find ourselves on the maps. We were completely lost.

We had some idea of our rate of travel and the number of hours we had floated, so we could guess how far we had come, but nothing on the maps made sense. All of us were expert map readers, and we finally admitted the maps were basically useless. I was a bit bummed, mostly because I had spent a fair sum getting four sets of them photographically blown up and laminated in plastic. Chunyu had agreed to bring a set of maps from Beijing, but they were labeled TOP SECRET, and we weren't supposed to see them. But when he realized we were lost, he said we could look at his maps if we didn't copy or photograph them. Although they were much better maps (1968), we still couldn't agree on our location. So that night, the first night we cared where we were, we went to sleep lost in China. I still can't remember what our camp looked like, or what side of the river it was on.

November 10





The water really slowed down, nothing but small ripples. We began to see more people, houses scattered on the hill slopes, and bamboo rafts used as ferry boats. Peter finally figured out where we were, with the aid of Chunyu, who asked a guy standing on the river bank what his village was called. After ten minutes of discussion with the guy, we asked Chunyu what he said. Chunyu laughed, "I have no idea, he's speaking a dialect!" They were Yi people, a minority nationality (like our Indians, only physically very similar to Han Chinese). By writing out the names of all of the villages near where we thought we were, Chunyu and Peter figured out a village name that matched the topography. Eventually, we learned that the concept of distance (such as five kilometers) understood by the Yi (and the Bai, the other minority group we encountered) was very different from the distances shown on the maps.

After lunch, the river became flat, and the hard metamorphosed rocks slowly gave way to soft red beds with open folds. There are lots of villages high on the slopes, some with electricity. Chunyu got in Mike's kayak, he was a natural. It was a lazy, uneventful afternoon until we saw a big red sign on the left bank. Chunyu climbed up the bank to read it, but couldn't quite translate it. Something about a quarantine, due to diseased animals. We dug out our dictionaries (a mistake, it turns out) and determined that the disease was the plague. Sara was freaked out, she's gotten very sick on some of her trips to China. So number one priority was to find an island camp, where, hopefully, none of the infected rats could bite us in our sleep.



Note rafts near lower point of island.

Just after dinner, right at dusk, we heard a motor. Eventually, a 25' metal ferry boat came up river and landed at camp. It carried three local communist party leaders. We had a very pleasant visit with them. Due to the failure of Soviet communism, communist party leaders in urban China are having new business cards printed which delete the reference to "communist party", but along the Yangbi they're

still proud of their status. They told us not to worry about the plague, the sign was several years old and there hadn't been any problems since then. Big relief to most of us, but Sara wondered how good their sense of time was if they've got no sense of distance.

November 11

During the night we kept hearing explosions echoing off the cliffs. During the day, we had seen a couple of fisherman throw dynamite into the river, then jump in and catch the fish that floated to the surface. But these explosions sounded too big. About a mile after camp, we came to a mining area. There was a thick limestone layer 1000' feet above the river, and all along it were mine dumps. Probably a skarn deposit (tungsten?), adjacent to a granitic intrusive in the limestone along an older fault.

The river was really flat all day. I had lots of time to think. Here we were, in the middle of a Chinese wilderness, surrounded by iridescent blue kingfishers, and I started wondering about money. It had cost a small fortune to get here. I didn't come to float a flat river that metal ferry boats could navigate, no matter how interesting the geology was. On the other hand, if the average gradient shown on Chunyu's maps was accurate, we were in for a dramatic increase in gradient after the river turned south, increasing the likelihood of lining or portaging, with lots of heavy lifting and long delays. The average gradient on the maps was about 12 feet per mile, similar to that on the Main Salmon river in Idaho, but so far it had only been about 5 feet per mile.

Mike and I had originally planned to finance the expedition with corporate advertising donations. We applied for a Rolex Award and got honorable mention, no money. No one else even responded, so we formed a non-profit corporation, Earth Science Expeditions, applied for and got tax exempt status from the IRS, and then tried to get donations. With a lot of help from Bud Wilson of Mountain View, CA, Rob Elliott of Flagstaff, AZ, and Dean and Kathy Fowler of Birmingham, AL, we raised enough to bring Qu Yinhua (one of the first Chinese to climb Everest), Luo Sixiang (one of the first Chinese to raft the middle Yangtze) and their interpreter, Ma Tie, all from China International Sports Travel (our original hosts) to the US for a 10 day visit in 1988, part of our deal to reduce permit fees charged by the Chinese.

The permit fee covers hotels, meals and transportation in China before and after the river trip, overhead costs (including salaries) of the host agency, and payments to provincial governments. It used to be that all fees went to cover costs, regardless of the amount of fee or the cost, back when "making a profit" was not politically correct. Now, it's OK to make a profit, and the government is slowly encouraging all of its agencies to charge enough to make a profit. As one businessman in Kunming told me, 45 years of communism do not diminish 2000 years of capitalism by very much!

We had hired a professional fund raiser who, with help from Bruce Babbitt (now the US Secretary of Interior), had just about convinced Coca Cola to fund the expedition for November 1989. Unfortunately, Chinese students decided to riot in Tianamen Square (in front of the People's Congress Building) in Beijing in June, and Chinese soldiers decided to use violence to control them. We had to postpone our expedition for five years, writing off all of our time and investment, a really big bummer. When we finally got the motivation to try again, with some prodding from Chunyu, we decided everyone had to pay their own way. We got another donation from Rob Elliott, owner of AZRA, the Grand Canyon river touring company that Mike and I had worked for in the early 1970's, and we renegotiated our permit fee to a reasonable amount.

I rationalized away the cost and the flat water just as we came to an island (hopefully without hungry rats) suitable for camp. It was early enough in the afternoon for Ben to climb 1000' up to the top of a pinnacle for a spectacular view of the canyon, while the rest of us read, updated our journals, and fixed things. We had found a village which sold beer along the way, and it was a real treat, even though it was only 2.9%.

November 12

The river was flat, still winding its way through moderate folds in red sandstones, until it made its big bend to the south, towards the Mekong. Until last night, the weather had been perfect, warm during the day, cool at night. A cold front passed through last night, windy but no rain. We were at an elevation of less than 4000', but the mountains around us rose to over 9,000'. We stopped for lunch on an island to avoid the feeling of being animals in a zoo, or as someone said, "I feel like I'm in a TV tube - can we change the channel?" There were locals everywhere, lined up along the bank in places. Word must have traveled from village to village. We were the first foreigners most of these folks had ever seen.

We had passed two faults shown on the geology maps, but neither crossed the river. They were up high, offsetting the limestone ridge and underlying red beds. Neither seemed to affect the topography much, so we figured they were minor. They certainly didn't explain the big bend in the river to the east, and then 20 miles later the big bend to the south. Other, unmapped faults must be present beneath the tributary and river alluvium, controlling the drainage pattern.

That morning we saw a warm spring, and immediately decided it was bath time. Chunyu assured us the red sign above it was a prayer, and not another plague warning, but it still concerned Sara. Everyone was still healthy, but, being a bit more responsible than the rest of us, she, Mike and Will decided to forego bathing so they could care for the clean but diseased fools who bathed. Sara was definitely feeling stressed out. She had held up well as the only woman in a group of moderately egotistical men (on average, anyway). The plague sign had scared her, and our callous attitude towards group health at the springs (at least from her perspective) was pushing her to the limit. Before the trip, I had been a bit concerned about not having a second woman along, or maybe even several, to provide some variety to the human scene, and to balance out the jokes told by the men in the group. Unfortunately, I had not been able to find other women who could afford to pay their own way. Sara was actually holding up very well under the circumstances, even though she claimed she was "repressed."



After lunch the river turned to the south, and we encountered our first riffle in days. Chunyu and I were kayaking, and we let him run it. He did fine, in fact he loved it so much we had trouble getting him out of the kayak before the Class III rapid right below it. After a quick scout, we ran it without trouble, but were promptly stopped again by a long Class IV rapid. We climbed up on a high gravel cliff on the left to scout the rapid.

It was too long to run in one shot, we couldn't see around the next bend and would have to stop on the other side to scout further. We couldn't help noticing that the character of the river bank was dramatically different here. Upstream, even in the first rapid section, there was vegetation right down to the high water line, about 5 feet above the water surface. Here, there was no vegetation for 20 -30' above the water, and no vegetation for tens of yards or in some places hundreds of yards away from the water along the left bank. There had been a flash flood of immense proportions not too long ago, maybe since the summer high water flows.

The kayaks went first, landed on the right and got out to help the rafts land among big boulders in fast current. Everyone had a good run. After picking a route through the next hundred yards of boulders and holes, we again had good runs. It seemed like we were stopping every quarter mile to scout, but everything was runnable. After a few miles, we were too tired to go on, and we stopped to camp across from an excellent exposure of a major fault zone, maybe 300' across, not on our geologic maps. When we pulled out the topo maps to figure out our location, we realized the whole stretch of rapids should have had large islands with braided channels. The flash flood that had made the huge gravel bar at the first Class III rapids had choked the river with rocks for miles, and had changed the river dramatically. Looking up the tributary, we could see the huge landslide scar in what was probably a big fault zone, and it was evident that many of the rocks in our camp were deformed and iron-stained.



Han Chunyu, in center facing camera, talks with a girl to camera left. We are 50 miles from the nearest road, and she has told us in understandable English that "My name is Shirley. I am 13 years old." She learned this at school. Learning English is a high priority throughout China, including villages far from areas frequented by foreigners. Photo by Ben Foster.

That night after dinner as dusk fell, a bamboo ferry boat that had been parked across the river loaded up with passengers and crossed over to our camp. It was a family with three kids (two older girls and a boy) and some friends. We made tea, passed out candy and visited with them and their friends. The flash flood was in fact huge, and wiped out farmer's fields on both sides of the river for a long distance. It had happened only a month earlier, about the time we had originally planned the trip. Talk about

luck, what a disaster it would have been to be camped below when a ten foot wall of rocks and water came down the river.

The girls were learning English at a school 15 miles away by trail. They were shy, but we could understand a few of the words they had learned (hello, my name is ..., goodbye). In addition to having an English speaking teacher, they watched a special "learn to speak English" soap opera on TV. The only other programs available were Chinese history soaps, and current events in China. The contrast with TV in the US was striking - we were brainwashed to enjoy sex and violence and buy hamburgers, they were brainwashed to learn English and love China.

We had heard that in the cities families were limited to one child and in the country they could have two, so we asked (through Chunyu, of course) how come they had three (other than the obvious reason). They wanted a boy, and were willing to pay the fine (about a months income). However, there was a lot of social pressure against having more than two children if you already had a boy.

November 13

The gradient increased and it seemed like we spent all day scouting rapids. In spite of the fast water, it was impossible to reach the confluence with the Mekong that night. Both Ralf and Mike had to roll (I think they were trying to surf but the waves were too big). I accidentally got stuck in a big hole, and barely avoided having to find out if I could roll in whitewater. The river was definitely making up for the low gradient stretch upstream. Other large side canyons on the left had also flooded, constricting the river and choking it with boulders.

At one rapid, the main channel disappeared into a boulder jam, and we had to cheat it by running over a shallow gravel bar for a hundred yards or so. Ben had a good run, but Will got stuck on a boulder for about 10 minutes. As I watched Will and Chunyu alternately jumping around and prying with the oars, I noticed one of the plastic buckets we used for washing dishes rip off and sink as it floated away. Although kayakers have done a good job of convincing rafters that kayaking is more dangerous and requires more skill, in reality rafters have much more responsibility. They not only have to move a much larger and less maneuverable craft around, they're responsible for the safety and lives of their passengers and for the rafts with all of the food and camping gear, not to mention the cost difference between a kayak and a fully loaded raft. Fortunately, Will and Chunyu finally bounced the raft over the boulder. Chunyu loved the excitement, and I was relieved that we didn't have to use any glue.

The hill slope and river bank vegetation grew thicker, reflecting a much wetter climate, and canyon began to get narrower as we progressed - the rocks were changing back to hard metamorphics. We were concerned about finding a camp so we decided to take the first one we found. It was a decent camp on the left about five miles above the confluence. It had been a great day, we were all too jazzed to be tired, and stayed up late that night telling river stories.

November 14

The gradient flattened, but the channel constricted, and in places it was just barely wide enough for the boats. We made good time, and reached the confluence before lunch. Ten years of planning, and we were on the Mekong! Ralf and Mike let me paddle first into the beautiful clear green water. It was warmer and very clean, much less silty than the Yangbi. There was a huge gravel bar with lots of sand overlooking both rivers, a perfect camp. When the rafts caught up with us, I decided to try my roll. One

thing about kayakers, they like an audience. Modesty is not in their vocabulary. I popped right up on the first try. Peter was going to take a picture, but wasn't fast enough, so he talked me into another one. Same thing happened, so I did a third one. I think he was just trying to trick me into practicing my roll. I was ecstatic, ready for the big water on the Mekong. We guessed it was running about 15,000 cubic feet per second, including with the Yangbi (six times the volume we had floated on for 8 days), and according to Chunyu's maps it had about the same gradient as the Colorado in the Grand Canyon.

After lunch, Will, Ben and Ralf crossed the Yangbi and climbed to a trail that went up the mountain. The topography was unusual, due to a granitic intrusion that had caused the river to make a large loop to the south. Probably this intrusion had produced the hard metamorphic rocks upstream that caused the narrow canyon we camped in last night. Peter and I hiked up a ridge from camp to take photos of the confluence, Mike and Sara relaxed in camp, and Chunyu took a raft across the Mekong to fish (Chinese fish don't like peanut butter). Up on the ridge, I kept hearing hints of the sound of a motor, but no boat ever showed up. Downstream, just at the limit of vision along the river's horizon, I thought I could make out something tall standing in the middle of the river, but the only thing that came to mind was a floating drill rig, and that didn't make any sense.

Back in camp, I cleaned out my river bag and found pictures of Cindy, Travis and Carmen. The last few days had been so intense I hadn't had much time to think about home, but now I wished they were with me. In spite of their reservations about my leaving them, they had been remarkably supportive, and I owed them a lot for it.

November 15



We shoved off, and about a mile down river came to a floating drill rig. I couldn't believe my eyes. The

rafts barely fit below the heavy cables holding it in the slow current. We later learned they were testing the river bottom for an other dam, Xiawan, a 1000 foot high monster which would flood 100 miles of river by 2007. I began to suspect we were on the reservoir behind the Man Wan Dam. I asked Chunyu to ask the drillers if we were on a reservoir, and they confirmed it. We were shocked! I should have guessed when the "river" rose a foot last night, yet slowed down. It should have gotten faster. I knew the Man Wan Dam had been under construction seven years ago, but not only was it completed, the reservoir was nearly full. I had been told it wouldn't back up past our take-out, 30 miles downstream, until 1995. In the US, it would be more like 1999.

So we tied the rafts together and started rowing. After a while we started seeing large motor boats, so we hailed one and tried negotiating for a tow. We couldn't agree on a price, so we tried again with another boat and lucked out. The boat driver said there had been many rapids before the lake filled, just a year ago. The further we went, the fewer camps there were - all flooded. Finally, we found a gravel bar and shared it with a couple of banana trees, some burros, and some mineralized rocks (probably zinc). So far, the region was definitely geologically interesting.

I was alternately elated and depressed. I couldn't decide whether I had gotten the elevator or the shaft. We had made it safely, no illnesses, no injuries, no lost equipment (except for the \$2 bucket), no earthquakes, we all got along great (a small miracle), we were on schedule, and we had had a fantastic run on the Yangbi - pollution, plague and all. But there was no Mekong River either, exposures of the big Nanding River fault in the polished rocks of the river bank were under 100' of water, and there were no big rolling rapids. Instead, the lake had opened up the area for logging - the boat that towed us usually carried logs to a small town, where they were trucked to bigger towns. And the dam produced electricity, probably the reason we saw power lines climbing down over the ridges to villages perched high on the slopes above the river, once upon a time located in the middle of nowhere.

Change was coming fast to China, much faster than I had anticipated. I could have paid SPOT Image \$2500 for a high quality satellite photo, which would have shown the reservoir, but then what? I had asked our Chinese hosts about the dam, but they didn't know and I didn't press them. I suppose it would have been possible for them to find out, but then what? Would we have canceled the trip? We all decided no, we would have come anyway, it was well worth it, but that was in retrospect, an easy rationalization.

November 16

The boat came back to tow us to the take-out where we had originally planned on meeting the truck and bus. Needless to say, the spot was under water. The boat driver also told us the paved road up the side canyon was impassible for 10 miles, but there was a dirt road over the mountains used by log trucks. We made camp on dry rice paddy terraces across from a logging village and waited and worried. How will they find us? Should we de-rig and hire a log truck to take us forty miles to the paved road on the other side of the mountains, or get a boat to take us forty miles to the dam? Or should we just wait and trust them to figure out how to get here? Maybe all my worrying was finally going to pay off.





We met this girl in the village, whose father had bought her shirt in a Walmart in Kunming!

Finally, we decided to wait until the next day, when we had originally told them to meet us. If they didn't show, we'd decide then what to do. Meantime, Will, Ben, Chunyu and I went over to the village to buy firewood and beer. We were such celebrities that they gave us the firewood, and invited us to visit and watch TV for a while. We confirmed what the boat driver had said about the roads, and made arrangements to hire a truck the next afternoon if no one showed up to get us.

November 17

We derigged the rafts and were in the last stages of rolling them up when Luo Xuefa passed by on a big motor boat and waved, right on time. All that worrying for nothing. There must be an element of pleasure in worrying, or we wouldn't do so much of it. We loaded everything on the boat, jumped on, and took off for the dam. The boat stopped several times at "taxi" stops to pick up people, so we had quite a party by the time we reached the truck and bus two hours later. It seemed like it took only ten minutes to load the truck, and we were off. We'd traded a whitewater adventure on the Mekong for a cultural one on the lake, but otherwise the trip had gone just about as planned. It was almost too easy.

Of course, we still had a long drive to Chuxiong, where the first hotel suitable for foreigners was located, on bad roads in a small bus without shock absorbers. The first several hours passed by uneventfully, but the closer we got to Chuxiong, the worse the traffic got. At dusk, we encountered our first traffic jam, two accidents about 100 yards apart in opposite lanes, so no one could move. Chunyu and Xuefa got out and started yelling and finally got things moving again, but it was slow going. One

traffic jam after another.

The worst one occurred in a small town, where a large truck was parked in the middle of the road, with other large trucks parked on the sides of the road next to it. Turns out it was dinner time for the drivers, so they just stopped. Gridlock! Everyone else had to stop too, so the restaurants were full. We even got out of our bus to have dinner, and had just been served tea when the sea of trucks began to move. We ran out, jumped in the bus and joined the free for all. It turns out Chunyu had roused a bunch of drivers who were sleeping in their trucks, and had gotten them to follow him to the restaurant where the driver of the big truck blocking the road was eating. With a crowd of half awake, half frustrated, and half angry drivers behind him, he convinced the big truck driver to move his truck out of the way, and everyone began jockeying for a space in the mess, hopefully going the right direction.

In spite of Chunyu's heroic acts, we didn't arrive in Chuxiong until after midnight, a 10 hour drive. Today was my 46th birthday, I'll never forget it. I was glad Cindy and the kids weren't there. Roads are far more dangerous than rapids.

November 18

Needless to say, we slept in. It was an easy three hour drive to Kunming. The truck with the equipment arrived at 3 pm, and we had everything unloaded into an old warehouse by five. That evening, we had a wonderful Chinese dinner, just the eight of us. Will bought some Snake Wine, and we toasted till we couldn't talk straight anymore. The food had been good on the river, a Sino-American combination, but it was nice to eat someone else's cooking for a change.

November 19

We repacked the equipment for storage and, with much faith in our Chinese hosts, we left it in an old building in a location I doubt I could find again. I'll definitely need their cooperation; I'm sure it was part of their plan to insure that I continued to work with them. We had a pleasant goodbye luncheon with the vice president of the Kunming Branch of the Chinese Academy of Sciences, a real nice fellow named Mr. Zhang, who seemed to know many of the Beijing scientists that Peter and Will knew from their previous expeditions to China.



## Gongga Shan

Ben and Will had planned all along to take the train north towards Chengdu after the expedition, to spend three more weeks in China, climbing to the 15,000' base camp of Gongga Shan, a 24,000' mountain east of the Yangtze. The train left at 4:00 pm, so we saw them off and went shopping. Kunming is really a nice city, as far as cities go. I don't usually admit that cities can be nice, because they're crowded, noisy, dirty and full of reckless drivers. Kunming was crowded (two million bicycles), it was noisy (ten thousand taxi horns), but it was relatively clean and there were too many bicycles for anyone to drive more than 15 miles an hour.

Mike and I walked downtown to buy sweatshirts for my kids, they wanted dragons printed on them. All I could find were Mickey Mouse patterns! Dragons are out, mice are in. Finally I found a shop that printed logos and numbers on sports shirts that had a dragon pattern. Using mostly sign language, I negotiated a price, and they pointed at a clock to tell me it would be a half hour wait. So Mike and I went "window" shopping. Just as I was about to suggest we look for a paint store to see if we could buy some glue to replace the useless cans in our patch kits, we walked by one, and sure enough they sold glue. The shop owner wouldn't let us open a can before we bought it to make sure it was the right stuff, so as soon as we paid for it, we popped the lid and took a big sniff. We were obviously happy after our sniff, it was the right stuff. I don't know if glue sniffing is a problem in China, but if it is the owner must have thought we were desperate addicts.

Back at the hotel that evening, we started to prepare ourselves for the return to another reality. Besides the inevitable packing, we all admitted to watching BBC on the tube to see if there was any news about the election results in the US, and caught ourselves talking about them as if it really mattered.

November 20

We got to the airport, said our good byes (even the customs chief was there to make sure Ralf's kayak made it on board), and were gone. The trip seemed both uneventful and like a never ending fantasy at the same time. Logistically, it had gone so smoothly that it could have been boring, yet something was always happening so it was totally engrossing.

At the Hong Kong airport, the other reality began to assert itself. Ralf's kayak and one of my river bags failed to show up. Peter, Sara and Mike got very bored waiting for Ralf and I to get all the lost luggage forms filled out; of course our missing gear didn't match any of the listed types of luggage, which required us to repeatedly describe the missing gear. It took us two hours, and we left with no assurance that our gear would ever reach us.

Ralf had a flight out that night, so he stayed at the airport. Mike, Peter, Sara and I went to the Guangdong Hotel, nice and very reasonable (no way we were going to stay at the airport hotel after our pre trip hassles). We went shopping, looking for Christmas presents, and found that prices in Hong Kong were very similar to those in the US, not the deal they used to be. We ended up having a great Italian dinner near the wharf, our first non-Chinese food in over two weeks. We had such a good time with the waiter (who was not Italian), that Peter almost tipped him 50%!

November 21

We went our separate ways, Peter and Sara to Massachusetts, Mike to Washington, and I to Colorado,

wondering if Chunyu had a good trip home to Beijing, Ralf to Australia, and Will and Ben to the shoulder of Gongga Shan. Eventually, everyone made it home safely, even my river bag and Ralf's kayak made it. I didn't realize how much I missed Cindy, Travis and Carmen until I met them at the airport. It was really good to see them. Now it's time to plan a trip they can join me on. I still don't know if I can roll in a rapid, so I may decide to row one of the rafts.