# Cataract Canyon / Utah August 18-22, 2014



On the Colorado River

I had been anticipating a trip to Cataract canyon for a couple years when I found out about this trip. Rafting on wild and scenic rivers has always been a fascination for me - it was a way to experience the environment and geology in its raw form - seeing the forces of rivers in the desert through a stark landscape normally devoid of water. Several years ago I made a trip down the Grand Canyon - over 2 trips, some friends and I covered over 270 miles of the Colorado River over 15 days.

On a recent trip to Zion National Park, I was hiking with some people down the famous Narrows of the Virgin River, and we started talking about Cataract Canyon - they were actually going to be headed there the next day! I was fascinated at their description, and after remembering so many good times in the Grand Canyon, shortly after I got home from that trip, I signed up!

### August 18

Today was finally the day I was going to be headed to the wonderland of southern UT to explore some of the enormous playground around Moab. I had been to Moab twice already and I felt every time I went, there was something totally new to experience. The trip was a bit bittersweet - my wife Nisha wouldn't be coming (she's not much of a water person), but her mom was in town. It was a "divide and conquer" time - she was happy to have a week with her mom and I was happy to get to go an adventure trip on my "bucket list"!

I was happy to score a free Southwest flight from San Jose through Las Vegas then to Salt Lake City. And for my rental car in Salt Lake City, I had reserved a compact size car (I was really only using it to get back and forth to Moab), but I got bumped up two grades for free - ending up with a Nissan Pathfinder - nice!

It was an uneventful 3.5 hr drive down to Moab and to the Redstone Inn – the same place my wife and I had stayed on our previous trip to Utah on our 4,200 mile Desert Southwest road trip! The room looked the same too! I was looking forward to meeting the group who I would be with for the next several days. Our first meeting was scheduled for 6:00 at the Gonzo Inn near the center of town. Since it was only 4:00, there was some time to go into nearby Arches national park and wander around a bit.

During our last trip through Arches, we realized there was so much more to do than we had time for - I felt a slight sense of regret that we didn't have enough time to see everything we wanted, and that we missed some things we might never get back to. Sometimes I tend to think like a perfectionist and I felt that since we didn't have time to see a couple things properly, the experience was "incomplete". I was guite happy to return to Arches this time. Even though it would only take a couple hours to make up the things I felt we missed last time, it had left a sort of void which was unexpectedly relieved when I returned. I had seen many iconic photos of Turret Arch framed in another arch, and now, having some time on my own to explore, I felt I could go and find it. Spending a little time in the park on my own to explore gave me a new sense of wonder I hadn't experienced on my previous trip. Hiking the primitive trail around the North and South windows I realized why I had been so eager to come back for so many months. Turret Arch framed in the North Window turned out to be magical as I ever could have imagined, and it would set a wonderful initial impression on my return to UT.



Turret Arch through North Window

It was getting close to 6:00 and I looked forward to meeting the gang I was going to be rafting with for the next 4 days. We had 18 of us on the trip and 5 guides - our main guide Lars

- Jen, Tom, Marcus and Joe the other guides
- Ryan and his mom Wendi from WA

- Susie from WA
- Doug and Robbie from Lodi, CA
- Gavin and Carolyn and their 2 kids from the UK
- Jim and Becky and their 2 kids from Seattle
- Randy and Jena from Seattle
- Evan and Bernadette from Washington DC
- and me!

We looked forward to sharing about many experiences we've been on. A group like this tended to have many common interests, and many days of fun were in store!

#### August 19

We met at the OARS warehouse just to the south of town - I was psyched about finally getting started on this trip. We had a set of procedures about how to handle our belongings during the 4 days on the river - I recalled my Grand Canyon trip I had remembered much of the procedures from that trip - we'd be carrying 2 bags of "checked luggage" and one "carry-on" bag. Our checked bags were for our clothes and sleeping / overnight gear, and our carry-ons would have our cameras, sunscreen and whatever else we needed right on the water. A bunch of us had visited a nearby liquor store the previous evening so we'd have a few drinks to be able to enjoy on the river.

We were going to be covering about 100 miles of the Colorado river, from our put-in at Potash point to our take-out at the beginning of Lake Powell. It was a relatively short drive to our put-in - we headed back north through Moab and made a left turn on Potash road. Nisha and I had been on this same stretch back in April when we visited Arches and Canyonlands national parks. I enjoyed the canyon country so much back then and I felt a bit of déjà vu from that trip. Although it was many months ago, it felt like yesterday as we passed the same streaked Navajo sandstone walls containing ancient Indian rock art on our way to Corona arch. The sandstone nearby was clean and invited climbers along its many clean routes - some climbers were out, getting their gear ready.

Ancient rock art has always fascinated me - a group of Ancestral Puebloan Indians had carved these panels thousands of years ago along the Colorado River. The rock art showed aspects of their culture - hunting big game and farming. In the way that the ancients have left a permanent mark on the environment, another more modern mark was being left - a uranium mining plant near Moab left its mark in the form of a giant pile of toxic waste in a bunch of tailings - the chemicals had leached into the water and altered the vegetation. Maybe a new species of 3-eyed fish was going to spawn someday...

Approaching Potash point, we passed the turnoffs for Corona Arch and Jug

Handle Arch - Utah is such a playground, and even after making several trips, we'd have to go back for more! The upper stretch of the river was mellow as we reached our put-in at Potash point. The water was tan, filled from sediment as recent rains have increased the flow. The water was greenish back in April, running clear.

We had 5 inflatable rubber rafts hooked up - one motorboat, two oar rafts and two paddle rafts. Our gear was stowed in the motorboat and oar rafts and we were ready to set off. The first section of the river is mostly flat-water, making for a rather boring paddle trip! We ended up keeping the 5 rafts all hooked together as a flotilla. The 40 hp engine kept our flotilla cruising steadily down the river at about 7 knots.

Clouds were blowing back and forth, sometimes billowing into large cumulus towers, and sometimes passing with warm breaks of sunshine in between. The weather was actually quite nice - I figured August would be blazing hot in the canyon, but with the monsoonal moisture and humidity, the desert air was rather pleasant. The motor hummed at a steady frequency as we cruised down the canyon - the Cutler group of sandstone formed cliffs on both sides revealing a history of the earth when the environment was quite different.

The float was relaxing - though it felt a bit like cheating! I knew most of the rapids were coming up, but I didn't realize they wouldn't start until late on the second day. After about 10 miles, we had a chance to get off the rafts to hike up and explore a unique bit of geology on the left shore. A small stand of trees had been covered in mudstone in geologic time, and as the softer rock started to erode, sections of petrified trunks of those trees started to emerge from the overlying matrix. There are no trees today, but the petrified wood indicates a chapter in the past where the ecology was something very different than today.

We had lunch at "Half Moon Bay" just across Shafer canyon. The sand on the bay had changed considerably after a large flash flood in 2010 whooshed down Shafer canyon, washing out parts of the road and depositing many layers of sand. I appreciated the canyon environment as dynamic - the beaches would change every year and the vegetation was actually changing before our eyes as well. We would find out about this later on the trip - witnessing the encroaching nature of non-native plants and the work of insects on those plants. Lunch was a delightful array of sandwiches and fruit - a welcome treat in the wilderness of the canyon.

The calming hum of the engine fit the serenity of the undulating layers of sandstone on both sides as we motored on downstream from our lunch spot. I knew this trip was short - only 4 days, but even on the first day, I was starting to appreciate the rhythm of life on the river. All the cares back home were far away.

We soon came to another interesting part of the canyon's history - this time instead of geologic history, there was a piece of human history. Just a ways up one of the banks of the river were a set of Ancestral Puebloan ruins called Lathrop Ruin. The natives were farmers, harvesting grain in its season. But to keep the grain safe the rest of the year from weather, pests and scavenging animals, they had built elaborate sets of granaries to store the food. We had come to a couple granaries tucked under a convenient overhang, walled in with still-standing mortared stacked rocks. The pots containing the food were long gone, but the fact the walls were still standing after maybe 900 years was a powerful testimony of their clever placement. I'm sure that the usually dry weather, and security by obscurity also contributed to their longevity. Pictographs of hands and triangular-shaped human figures stood nearby, close enough to touch, providing a guide to the spirit world.



Lathrop Ruin

We took a different path back, traversing some narrow sandstone ledges, crossing through a natural tunnel weathered out from a crack in the rock. The ledge in places was a convenient "sidewalk", cut out by nature along steep cliffs. We followed the narrow trail back to the rafts, taking care to avoid stepping on the pervasive cryptobiotic crust all around.

The weather was starting to come in as we motored the last few miles toward our first camp near Sheep Bottom. We had motored 31 miles the first day and were ready to call it a day. We hastily formed a fire line to pass the tents, tarps, our "checked luggage" and supplies to shore - the clouds were looking more ominous by the minute. In fact, right as we were getting ready to put up our tents, the wind started to kick up. Gusts of wind were blowing upstream, sandblasting us all around camp. We got off the water not a moment too soon! But I was also glad we hadn't quite gotten the tents up yet - we were a bit lazy and procrastinated a bit. But procrastination turned out to be a virtue - if we had the tents set up, the 50 mph gusts may have bent the poles and blown the tents clear

across camp! Our group was hunkered down like the penguins in March of the Penguins as the gusts of wind and rain and sand were blowing by.

The tent was still sitting in its wet, sandy bag when the wind subsided a few minutes later - fortunately the storm blew itself out fairly quickly, and we were able to quickly get the tents set up before another round of rain and wind might start. Laying in my warm sleeping bag was a treat - the knowledge of a refuge from the elements was comforting. Some people were chatting outside and my normal extroverted tendencies would have had me come out right away, but the peace and quiet here were exactly what I needed.

In the meantime the guides had set up a nice table of herring, oysters, cheese and crackers - a delicacy on the river. The rain picked up again a bit, but at least the wind had mostly died down. After some time, I joined a half-dozen folks sitting under a big umbrella enjoying snacks and telling stories - our spirits perked by the food and company. The forecast was calling for the worst weather of the rafting trip during today, so I knew it had to only get better for the rest of our trip!

After the rain had subsided, a few of us ventured out to explore around camp a bit. A rainbow formed, reflected in the still water near our camp. A layer of vomit-like slime started flowing on the far side of the river, perhaps the debris washed down from a flash flood upstream. The Colorado River above Cataract Canyon is un-dammed, flowing freely and naturally. This was my first time in canyon country during a storm, and seeing the power of the flowing water gave a bit of respect for the forces of nature. I'm glad we weren't near a slot canyon and we were a decent distance above the river at camp. Recently in Zion national park, we were hiking the Narrows, and in places, large logs - over a foot in diameter were laying by the river, far from anywhere trees that big would grow. I kept an eye on the river - it had already risen a few inches and I was glad our tents were a good way up the shore and our boats were staked down well. Several tall waterfalls, hundreds of feet tall but just a few feet wide streamed down the opposite wall of the canyon.

A brilliant band of white gypsum maybe 10 feet thick formed an angled stripe on the wall just downstream from our camp, revealing some of the geologic history of the canyon. Millions of years of geology were uncovered by the erosion of the Colorado River, exposing periods when the earth was a very different place. The sparkling white gypsum may have formed at the bottom of a shallow lake that persisted for a short period but then was gone. The geologic record kept that memory alive.

I stopped to explore some of the vegetation around camp - much of it was tamarisk, an invasive species that got introduced in the last few decades. However, much of the tamarisk that had invaded the ecosystem has started dying back, thanks to the introduction of the northern tamarisk beetle in the last several years. Once the roots of the dying plants are weakened substantially, the occasional flash flood would come to wash away the dead remains. I hope that in another decade or two, the ecosystem would be restored to its pre-human natural state.

An interesting side canyon with a small creek lay just behind our camp, beckoning some exploration. Perhaps some undisclosed treasures or ancient ruins were buried in a cave or concealed back in the twisting canyon. Although the tamarisk was mostly dead, the brush would end up forming an impenetrable wall of vegetation barring access - even with the valiant efforts of several people, without a machete or chainsaw, passage was nearly impossible if you wanted to avoid getting scratched up like stumbling through a cactus garden. Maybe some secret treasures would be found at a later time.

Dinner was a feast of salmon and veggies. The guides really knew how to treat people right on these kinds of trips! And thanks to people's contributions of various libations, we could enjoy a bit of alcohol as we swapped stories of past adventures. Although it was still too wet to start a fire, we would have our lanterns and headlamps on into the night. A peregrine falcon shrieked overhead - swooping down from his perch hundreds of feet up on the walls across the river, reminding us we were in quite a wild place now, far from any roads or civilization. I knew in just a few days I would be back home and starting a full-time work of job hunting - this rafting trip was in a way my final hurrah of adventure for this season of my life.

Heading over to the "groover" (toilet in river talk) after dinner, I saw that many of the willows were covered in beautiful blue iridescent willow beetles. The beetles had been at work for some time, clumping in balls around the stems and leaves. I didn't think to take my camera to the bathroom but had to go back to my tent to retrieve it. The canyon kept on revealing its secrets, even at unexpected times.

The stars came out one by one as the clouds parted. Randy was getting his camera and tripod out for some night photography. I managed to stay awake for a short time before my eyes were too heavy to stay up anymore. We'd have a big day the next day and my anticipation for adventure was running high!

### August 20

Morning came bright and early in the canyon. The river had subsided back down maybe a foot below its high water mark from the night before. Several of us took an early morning stroll to enjoy the morning alpenglow high on the canyon walls and enjoy the serenity of the stillness of the canyon. I ventured out toward the mouth of the side canyon one more time, looking for a break in the formidable wall of tamarisk, but again to no avail - oh well. Giant blue heron tracks formed

paths along the muddy bank - the 3-toed prints were as big in diameter as my own footprints.



Sunrise in the canyon

I was almost back to camp when I heard what I thought were 3 gunshots - if this had been a trip with my friend Jef from the Diablo caving group, they would have been a bunch of M-80's (he was a pyromaniac). If anyone was still sleeping, I don't know how they could have not been awoken! The "gunshots" actually turned out to be Lars slapping a sleeping pad against another pad, but that sound was a far cry from the warm sound of a blowing of a conch shell on my previous Grand Canyon trips!

The hot coffee warmed me up nicely and breakfast was a feast of eggs, sausage, muffins, fruit salad and coffee. I was anticipating a wonderful day - the forecast was supposed to be good and warm but not too hot. As soon as the sun reached our camp, however, it warmed up quickly! We delayed a bit breaking down camp to let our tents dry out properly from the rain the previous evening - we wanted to take advantage of the warming sun.

We were soon packed and were loading our flotilla of rafts for another bit of motoring downstream. The water was placid but noticeably browner than the previous afternoon - the run-off from the heavy rain the previous evening was filling the river. I had thought of the desert as a timeless place, but was soon realizing the river was quite a dynamic environment especially during the monsoon season of rains - sandbars would move, flash floods would stir the vegetation, and waterfalls would pour over the rocky ledges.

After maybe an hour of floating, we were coming to a point where the river made a sharp hairpin bend back on itself. Beyond this hairpin would be a second one and the river would flow again in its original direction. The canyon was quite deep, ringed by impassible cliffs, and these large bends formed in a seemingly very improbable method. The plain of the Colorado River was once quite flat, like that of the Mississippi, with the river meandering through the plains. But as the Colorado plateau began to up-lift, the meanders became entrenched in place as the water continued to cut downward. To further complicate the geological history, a large salt dome thousands of feet thick lay thousands of feet below the rock strata at the surface, and the erosion of the river cutting through the overlying rock caused the salt to start to bulge upward. This force was enough to fracture thousands of feet of rock layers above slightly, creating a weakness in the cliffs that permitted a dramatic hike across the neck of one of the meanders.

This formation known as the Anticline Meander was a dramatic feature and we had the opportunity to explore it on foot. It was about 6 miles along the river, but 1/2 mile across land to get across this neck, and in about the time it took for the rafts to float the 6 miles, we would be able to hike the 1/2 mile. The trail was narrow and rocky, but never particularly difficult. We came to a pass - a low point where the rock had weathered along the line of the enormous fracture. At the pass, large cliffs stood on both sides, framing the river and providing a birds-eye view of the enormous scale of the geological phenomenon that stood at our feet. A towering cathedral of red sandstone stood like a buttress between us and the end of the river meander.



Saddle in the Anticline Meander

Hiking back down, we saw our boats coming up and landing on shore at the base of the trail. The hike was steep and a bit slippery in places - loose rocks and sand made for tricky footing. We were in an amazing photogenic place, and a couple times on the trail, I slipped and nearly dropped my camera taking photos in my excitement - I had to keep learning to stop first and take a moment before grabbing a photo!

Back at the river, many of us decided to float in the placid current. The cool water was refreshing on our hot and sweaty bodies as we got to act like kids again. Of course this whole trip seemed to be about us being able to be kids again - I had many good memories of playing in the water at our lake house in MD when I was growing up, and this trip of hiking and playing in the water took

me back to that time.

After maybe 15 minutes we had enough and were ready to climb back into the boats - climbing in was actually quite non-trivial, sometimes requiring a bit of help, which would become a useful skill in the upcoming rapids. Looking around from my seat in the raft I saw the scenery was quite different yet again - even though it felt like we were only in the water a short time, we had probably drifted over a mile in the 4-knot current. Another low point in the cliff on the right side was in fact another saddle where the second of the hairpin meanders could be cut.

Lunch was at a small pocket beach nestled in the cliffs on the left side. We had our little cove all to ourselves - a secret hiding spot on the river! We got to explore and hike around the cliffs nearby, finding several more small fossilized trees like we saw the first day. Fossil shells were exposed on some under-hangs in a shelter cave. Nearby was a small cave about 7 feet up on one of the cliffs with a small boost I was able to climb inside - the dusty opening was about 5 feet across, framing a scene of the river and the river-guides setting up lunch. Beyond the cave, the trail came to the top of a set of cliffs directly above the river and our rafts maybe 40 feet below. If the water were deep enough it would make an exhilarating jump!

Lunch was ready, juicy red slabs of watermelon, sodas and sandwiches with cookies for dessert - I felt I was 10 years old all over again - all of my favorite foods were there! There were 4 kids on the trip all around that age, and Ryan, even though he was only a bit younger than me was enjoying acting as a kid as well! But at the same time, a bit of awkwardness of having been married for over a year and my wife being at home the whole time created a dissonance, forming an unexpected sense of loneliness. I looked forward to getting back home to share the experiences so she could live the trip vicariously!

After lunch we were going to enter the "official" Cataract canyon - the whole trip so far was just the journey to the starting point. Starting from the confluence of the Colorado and Green rivers, the Colorado enters a wild section of rapids before being enveloped in Lake Powell. This is what we had come for, and what our permits and guides were all about! The muddy brown waters of the Colorado mixed with the clearer green waters of the Green (a fitting name) - the line of mixing waters was visible for quite some time as we continued downstream. A series of rock needles at the top of the wall signaled the entrance of the canyon these needles were part of the "Doll House" a wondrous geologic formation in the remote "Maze" section of Canyonlands. A hike up there was a magical experience - I'd have to return someday.

We parked the rafts on shore just beyond the confluence and started to split the

flotilla into 5 separate rafts. Joe was running the motorboat, Lars and Marcus were running the oar boats, and Jen and Tom were guiding the two paddleboats. We got the paddles out for the paddleboats and fitted the oars into the oar-locks on the oar boats - we were getting ready for some rapids and adventure! Lars went up to the register on shore to make sure we were signed in properly and that we could get some decent campsites. Meanwhile, the folks in our paddle boat and in Tom's boat started practicing some important skills - "paddle forward!", "back-paddle!", "high-side right!", etc. I hoped to not have to do a high side or need a throw-bag, but the rapids were unpredictable and the groups were unpredictable as well.

The first few rapids of Cataract canyon were relatively mild - just a class 2 riffle or easy class 3 rapid. But they would give us a preview of what was to be expected the next day - the wild stretch of river containing over 25 rapids in rapid-fire fashion. The rapids had mostly uninspired names like Rapid #1, #2, etc. — nothing like "Sockdolager" or "Meatgrinder" or "Hospital rapid". But the ones later down would be just as treacherous! We got a decent taste of the rapids to come, running #1 through #5 before reaching our second camp at Rapid #5 beach (why can't they name these places better?).



Camping on the beach

This time the camp reminded me of nights on my Grand Canyon trip years ago sandy beach, warm clear weather, and places to explore. Just upstream from our campsite was a small side canyon (this time finally not choked by impenetrable brush!) that begged to be explored. It was still relatively early - we had made an efficient use of our day, and after getting my tent and sleeping bag set up, I was able to set out and explore up the canyon a bit. The bottom part was quite dry, but the upper part was still filled with some muddy pools, perhaps from a flash flood the previous day. The rock layers were smooth, and as the walls narrowed the rock showed a beautiful polish from the force of the water. What was perhaps a rushing torrent of water 24 hours ago was just barely a trickle a day later. The canyon ended in a boulder choke about 15 minutes upward - the large rocks were stacked and rather unstable looking, and didn't appear to be worth the risk of taking a "127 hours" risk to venture further. I was satisfied, having found a quiet peaceful place on my own to chill and recharge a bit. Although I am naturally extroverted and enjoy being with the group, I also need times on my own to unwind and let my thoughts process a bit.

Back at camp, a game of horseshoes was in full swing, and some people were getting balls out for a game of bocce ball. A good way to relax with a beer and good company. I was sad the trip was already halfway through - I had enjoyed the longer outings in the Grand Canyon in years past.

Just as our game was wrapping up, the wind started to kick up again - some dark clouds started blowing in, a déjà vu of the previous afternoon! Luckily our tents were already set up and staked down well for just such a situation. I hunkered down in my sleeping bag as the wind whipped the fabric of the tent back and forth - occasional peltings of sand and raindrops battered the side of the tent. But in less than 15 minutes it had passed and it suddenly got calm again.

Stepping back outside for happy hour and coconut rum, I saw the clouds starting to part, blue sky opening up again. The kids enjoyed collecting crickets and digging holes in the sand, connecting them with underground tunnels. I offered to help a little, digging an underground metropolis some 4 feet in diameter, linked by 3 holes 2 feet deep. I shot a video, rolling footage of traveling down one hole, passing the camera through, traversing a tunnel, and coming out another hole (while carefully avoiding getting the lens full of sand!) - the footage came out like a scene in Star Wars with invaders coming from a desert planet.

Dinner was chicken and vegetables, another delight out on the river. It was finally nice and dry around camp, and this time we were able to get a fire started. The stars came out beautifully as we got the bonfire going. I was again reminded of days long ago as a kid when we would spend the afternoon on the lake at our cabin in MD and then chill by the campfire in the evening - I knew I would be job hunting soon and getting ready to re-enter the "real world" back home, but I was happy to enjoy one last taste of being a kid. Lars gave a preview of "Stars with Lars", pointing out some of the constellations and stars overhead. A couple shooting stars streaked overhead and a couple satellites drifted by, glinting in the sunlight high above the shadowed Earth's surface.

Dessert was strawberry shortcake and whipped cream. But to save on having to wash another round of plates and silverware, Lars came to each of us, had us open wide as he stuffed a piece of cake into our mouths, dropped in a strawberry, and sprayed a bunch of whipped cream on top. I felt like a "chubby

bunny" with my mouth full of sweet dessert - I was definitely 10 years old all again! Along with the dessert was a piece of entertainment - a couple of the kids took turns with glow-sticks and ropes with glowing balls on the end, producing wonderful rainbow patterns as they danced. A time exposure photo came out as a glowing "ring of fire" surrounded by their heads. I had seen a similar act in Bamberg, Germany on a trip just a month earlier, and now the kids in this country were into the same toys!



Playing with glow-sticks

## August 21

Today was the big day - we were going to be running a lot of rapids! I didn't realize ahead of time that all the rapids in Cataract Canyon fell within a short stretch of the river. Above the confluence with the Green river, the Colorado is mellow as it meanders along large cliffs of the Cutler group, and below the rapids, the river enters Lake Powell. We would end up witnessing a large scale geologic formation first-hand on the river throughout the day.

Sunrise was cool and clear on the river - I hiked up a nearby slope next to the river to witness the rising of the sun over the canyon rim. The setting was serene, the water was smooth except for the end of the riffle of Rapid #5 just upstream of our campsite. Hiking back down from the sunrise point, I realized that slope was actually connected with a landslide on the \*other\* side of the river - apparently in years past, a catastrophic landslide had completely blocked the river, forcing the river to cut another channel completely through dozens of feet of rocky debris. I remember a landslide on CA 140 on the way to Yosemite that blocked the highway for several months - this slide was quite a bit bigger!

The Paradox formation is a large salt dome thousands of feet below the layered rock, and a section of the hydrophobic salt has uplifted through the rock strata, even becoming exposed on the surface. This formation is the oldest formation in Canyonlands national park, affecting every part of the younger geology. This fracturing of the geologic structure has created weaknesses in the rock strata,

causing drops where the river cascades over a vigorous set of rapids - our objective for this trip!

Breakfast was a feast of French toast, sausage, fruit and coffee - we'd need the energy for a big day. We had many choices on how to run the river - we could go in one of paddle rafts (with 6 people), sit in an oar boat, relax in the motor boat, or try our hands at inflatable kayaks. We had 3 kayaks - two were one-person "duckies" and one was a 2-person double. Having really enjoyed my time on the river in inflatable kayaks in Belize, I decided to give it a sense of adventure - I picked a 1-man ducky. The ducky was very light but maneuverable - often you would be at the mercy of the river, and quick reflexes were required to keep yourself pointed the right direction. It was also a personal challenge - you felt you were tackling the challenges of the river one-on-one.

We were going to run 5 rapids (#6 - #10) and then have a break. I felt 5 rapids would be a good test to see how I could run them. Getting in the ducky and feeling my way around the current in the river, I felt an immediate sense of control and freedom to move about in the swirling rapids. The first rapid was a smaller riffle, a good introduction to how the ducky handled. After several rapids I was getting the hang of it and finally after hitting the biggest one (#10) I had the exhilarating sense of being on a huge roller coaster of big waves. I remembered smiling and shouting "Roger that", remembering my friend Roger from my Belize trip who had paddled for many decades class IV and V rapids in the cold water rivers in the upper Yukon.



Running the rapids

Rapid #10 turned out to be along a long sandy beach, and after finishing the rapid, we could pull to an eddy on the right, walk up the beach, carry the boats to the top of the rapid and run it again! I had my fill of the ducky so I gave my ducky and paddle to someone else - it was nice to have a rest, but I knew it was a chance to finally get my camera out (I hadn't gotten any pictures yet on the river). Filming people running the rapid was as much fun as running it myself -

especially seeing a 2-person kayak get stuck, and in slow motion start to flip over right in the middle of the biggest wave!

The rapid was big and splashy without any dangerous hydraulics - no large rocks, reversals or strainers were there to cause dangerous objective hazards, so anybody could safely go through. Flipping in the rapid would probably initially be a bit scary but wouldn't be as dangerous as it might appear - I'm sure the guides would have thought otherwise before letting people go through on their own. We would even have a chance to swim the rapid - just float on your back, keep your feet pointed downstream, breathe between the waves while turning your head to the side, stay focused, and swim toward the eddy on the right when you got through. I had swum some small rapids before on Cache creek in CA years back where the rapids were small so I decided to give it a go.

Walking up the beach, trying to ignore some semi-naked hippies that had already obviously too much to drink (or smoke, or both) by 10 am, we made our way to the top of the rapid once again. Sliding into the cool water, I paddled with my arms into the main current, aiming for the "smiling" large V-shaped waves - the same line I picked in my kayak just a short while earlier. The waves were big and splashy and fun - probably 10-12 feet high with large troughs in between. The flow was quite strong, and even though it was already August, a heavier than average monsoon (including the heavy rains over the last few days) increased the flow substantially. It was a wild ride like a big roller-coaster ride. Even though here it was intentional here, the experience would actually turn out to be quite valuable later on in this trip!



Kayaking through the rapids

Swimming to the shore was tiring and seemed to last forever. Although it only looked like maybe 100 yards, the scale of the canyon was deceiving. Swimming in the churning water was exhausting, and it seemed like the current was pulling me away from the shore. About a dozen of us were swimming, and we appeared to all be in the same predicament. I felt a bit of relief when I was finally able to

touch the bottom and wade my way back to shore. The sun was muted, hiding behind a veil of high clouds. It took some time to warm up again, but watching the next wave of swimmers running the rapid was a welcome bit of entertainment.

After this break, we got back into our rafts and ran just 2 more small rapids until we hit our lunch spot after Rapid #12. At first the surrounding rocks and cliffs appeared broken and not particularly interesting, but a closer inspection revealed a fascinating array of geologic history. While the guides were busy preparing lunch, we had a time to go for a walk up the canyon a bit to have a look.

Fossils dotted many of the rocks lying in the creek bed - some reddish brown rocks contained brilliant white sections of crinoid stems, fossil brachiopod seashells, pieces of fossilized wood and pieces of coral-like formations. We got to visit the heart of the Paradox formation - a section of the underlying salt formation had pushed its way completely to the surface, breaking apart many layer of rock above. The walls were covered in sparkling salt crystals - the cubes of calcium chloride were about 1/4 inch on a side, clustered together in a dense array of crystals. The salt was different than table salt (sodium chloride) and didn't have much taste, but it was soft enough to scratch with your fingernail. Salt has the strange property of being hydrophobic - water causes it to push outward, and on a big scale, it creates vast "upheaval domes" intruding upward.

The upheaval dome in this section of the river would be responsible for creating the next dozen or so rapids. Unlike classical rapid formation such as what is found in the Grand Canyon where flash flood debris from side canyons created rapids, in Cataract canyon, the rapids were caused by landslides formed by the uplift of the underlying salt. The rapids were unpredictable and often quite intense - we were ready for a wild ride for the rest of the day!

We enjoyed lunch by the side of the river - again sandwiches, fruit, salad and cookies, as the guides were busy packing up and securing the duckies. The next section of rapids would be too intense to run the kayaks safely. Meanwhile, we enjoyed a long break, this time with the kids building forts on the beach protected by a fence of sticks jammed into the sand. We'd soon be leaving the safety of shore for the biggest rapids - simply named #13 - #20, though the biggest ones in the middle were also named Big Drop #1, #2 and #3.

Back in the rafts, paddle in hand, I was helping power us downstream. Jen was our rudder and we were the engine, navigating the various drops and hazards in the water. The first couple rapids were fun with big splashy waves. On one, I could feel the raft getting stuck just past a large boulder - a "hole". An extra bit of adrenaline in our group powered our paddles to ride over the hole without incident, but it was a wake-up call. The water was higher during our trip than was usual for this time of year - a wetter than usual monsoon kept the flow high and exciting.

We were coming to the 2-mile stretch containing the 3 Big Drops - we were excited! I wasn't particularly nervous - I had been on many big rapids, especially in the Grand Canyon and we scooted through all the waves no problem. But on the second of the Big Drops, the front of the boat pitched upward to probably a 45-degree angle, and big Ryan in the front seat floated out of his seat maybe a foot or two. He didn't fall out, but when he landed, it caused the rubber raft to flex, vaulting Susie (who is quite a bit smaller) into the air, casting her overboard! She had a bit of "down-time", recirculating through the rapid, passing underneath the raft, and popping out downstream of us. Several of us immediately offered our paddles so she could grab one and get pulled back into the boat. She came right in front of me and I instinctively grabbed her life jacket and yanked her back in with an extra flow of adrenaline. She was shaken up and a bit scared but she was fine. But whoops, she was missing her right shoe!

We didn't have much time to get re-situated, since Big Drop #3 - the biggest of the lot was immediately downstream of us. I'm glad she was safely aboard before we had to grab our paddles and run the big rapid... she again got a mouthful of water while hunkering down in the raft, but this time nobody fell out - we were all safe - whew!

Two rapids later on Marty's Hole (at least this one had a good name), Carolyn got vaulted out and flew off the other side of the raft. Luckily she ended up right next to Ryan without taking an underwater swim underneath the raft, and Ryan yanked her to safety right away. She coughed out a mouthful or 2 of water but was fine. But she had also lost a shoe - her left one - whoops! Ironically, she was wearing the same style of shoes as Susie! Fortunately, someone had an extra pair of shoes, so Susie gave her other shoe to Carolyn (it was only a 1/2 size difference) and Susie was able to borrow the other shoes! I felt God was taking us through a bit more adventure than we were expecting, but He was protecting us and He was even showing a bit of His sense of humor!

The biggest rapids of the trip were finished after #20, and we enjoyed a short break for a snack, re-fills of our water bottles, and some playing in the water. The guides were getting the duckies back out for those who wanted them. I really enjoyed paddling the single kayak in the morning and was looking forward to another go at it. I knew there were only a handful more rapids, and even though I was quite tired at this point, I was ready to go! I was the only one on the kayak this time though - I think most people were pretty fatigued after the big rapids.

Rapids #21 and #22 had some fun waves - I could ride them like a roller coaster,

following the paddle raft. I would see the cue from Tom's paddle raft and I said to myself "Roger that" again... But the next couple rapids would be a bit squirrelly - one rapid spinning me around a little before I could muscle through it, and the next one casting me out of the boat. On my Belize trip, I had been knocked out several times but always came up right next to the boat, so a quick push back in and I was going again. I was in the water just a couple seconds after Rapid #24 but I knew I was quite fatigued and was hoping for camp to be rolling around the next corner.

I had been the only one at this point to volunteer for the inflatable kayak – the others decided to pass. I'm not normally a big risk-taker but I feel it's healthy to stretch one's boundaries – to go out of my comfort zone every once in a while. That's how to grow. I would actually be having an unexpected growing experience coming up very soon.

Camp was still quite far off - we would end up running 7 more rapids before pulling in! Luckily there was a nice break before the next rapids where I could regather my strength, get some water and a snack in my dry-bag and relax a bit before continuing. We were getting near the high-water-mark of Lake Powell after many years of drought and over-use of the water, the lake level had dropped considerably in the last couple decades. We were on a stretch of river that had been re-opened after the lake dropped. As the rocks had been recently exposed, the rapids weren't "worn-down" - they were fresh and quite unpredictable. Otherwise we would have been done with the rapids and just paddling flat-water the rest of the way.

Rapids #27 and #28 were great fun, probably the biggest waves I paddled the kayak through (maybe except for #10). I thought we were getting close to calling it a day when we got up to Rapid #29. The paddleboat went through first, getting a bit hammered but enjoying the ride. I saw them "high-5" their paddles after getting through. I looked forward to nailing the rapid and joining the paddleboat afterward and being able to boast about it together. But the river had a different idea. The waves were wild, tossing and spinning my single kayak more unpredictably than before. I was more tired than I realized and didn't have quite the strength I had earlier - I felt more at the mercy of the river. And then the hole came. Just to my right, a large boulder underwater created a strong hydraulic, catching the back of my ducky kayak. I paddled but could sense my right arm starting to give out as the kayak started to lean to the right, toward the hole.

I'm not quite sure what happened right afterward, but I soon found myself tumbling through a watery maelstrom of rushing current. I was probably only actually underwater for a few seconds and down just a foot or two, but I felt as if I was being pulled to the bottom of the river 20 feet below. My life jacket immediately did the thing it was designed for, and soon I was bobbing on the surface, facing a chatter of big waves ahead. Popping through the waves, keeping water out of my mouth, keeping my feet in front of me, I grunted my way through, taking quick breaths wherever I could. I was exhausted and simply in "survival mode" for a moment, just waiting for it to end! Luck was with me, however, the paddleboat was just maybe 20 feet in front of me, and once I cleared my head and gave an overhead "OK" sign, I was swimming toward the paddle raft (and they were paddling toward me too!) With a quick yank, Ryan lifted me into the paddleboat and I had a quiet place to calm down for a moment. My paddle and kayak were still right next to me in the water, so they could be quickly retrieved before being sucked down into the next rapid - whew!

It was a humbling experience - I hadn't taken a spill like that in many years in the water, and I realized my dependence on others for my safety. I've enjoyed experiences of self-reliance, where I could go out somewhere, battle the elements and come back without needing help. A sense if pride would come up and sometimes I would come back with a "better than you" mentality I secretly harbored. I felt this was a message from God as well - I was reminded of one of my favorite verses from Isaiah - "When you pass through the waters, I will be with you". It doesn't ready "when you pass over the waters" or "go around the waters" - God takes us through certain experiences to teach us more about Himself.

I was reminded of the lyrics of an old country song by Garth Brooks "The River", where one stanza goes like "There's bound to be rough waters, And I know I'll take some falls, But with the good Lord as my captain, I can make it through them all" – I still remember that song on my way to the airport when I first left home in PA to settle cross country in CA with my first job, and here the lyrics rang as true as ever.

Gavin took my place in the kayak, and I was back in the paddle raft. The last two rapids into camp were uneventful, and soon we were pulling into our last campsite, a sandy beach on the left side of the river. This was our last rapid - we ended up doing all the big rapids in one day - whew! I actually didn't remember seeing any other places to camp before the spot we were at, anyway.

The site was wonderful, actually - it consisted of two separate sandy layers of beach, separated by a thin wall of willows. The lower terrace was our common area - the "kitchen" and "living room" and the upper terrace was a perfect spot for our tents - the "bedroom". The layers must have gotten deposited over time as the lake level dropped - again I was reminded that the last 10 or so rapids used to be underwater when Lake Powell was near its maximum. Perhaps with a couple good rainy and snowy winters the lake might start getting replenished again - the low water was a very visual reminder of how dry things have been for many years.

Our final dinner on the river was a wonderful tri-tip steak, potatoes and vegetables. We opened my Castle Valley wine I had bought for this trip - it was a welcome treat to celebrate our trip down the river. Even though many of us had unexpected adventures along the way, we all made it through just fine in the end! One of the guides even made a Dutch oven and baked us a cake for dessert! We were camping in style now...



Relaxing at our final camp

The sky was mostly cloudy, covered in high clouds, obscuring most of the stars. The "Stars with Lars" turned out to involve more imagination this time than vision as we played with the green laser pointer at the stars we could see. Adding to the entertainment, the kids got the glow-sticks out again and had a wonderful time drawing enormous hoops, figure 8's and hearts with the colorful glowing spheres.

### August 22

I slept like a rock overnight - muscles that I didn't even realize I had were sore! The sky was still mostly cloudy, but an opening to the east made a space for the morning alpenglow to set the upper canyon walls on fire for a moment. It was rather cool - nothing like the middle of summer in the desert, but it was very pleasant. Hot coffee, fruit, pancakes, and leftover cake from the night before made a wonderful final breakfast before we started packing up for our last stretch of river.

The ride out was smooth and fairly uneventful, but the scenery changed dramatically. Cedar Mesa sandstone started to emerge out of the river, forming a wonderland of cross-bedded canyons and vertical cliffs. Streaks of patina covered the light colored sandstone as minerals were deposited during the infrequent rains. A small arch was visible at the top of one of the cliffs.

We were on Lake Powell "proper" now - the current gradually dissipated as the water reached its equilibrium in the lake. We got out a couple times to splash

and play in the water as lunch was being prepared - the guides were getting the coolers out with the left-overs of what we didn't finish the previous days. We ended up just keeping our flotilla together and eating right there on the boat as we slowly drifted downstream. Oranges, sandwiches, soft drinks and honeydew made a nice treat.

It was a relaxing finish to the trip - the last hour was serene, with just the hum of the engine, a gentle breeze and the warm sun as we cruised. I woke up after a brief nap when another boat motored by - they were singing on their boat! And one of the guides there knew Lars - it was a small world out on the river!



Final stretch of river

The wind started to kick up considerably during the last couple miles of the river the canyon was acting as a wind tunnel, blowing us back upstream. Another party was rowing an oar boat with big wooden oars, straining against the wind, barely making progress downstream. It was wonderful at times like this to just crank the motor a bit! I know some people who are "river purists" and would never believe in "cheating" and using an engine, but I figured more power to them...

A small plane flew overhead - our first sign of civilization in several days. And two minutes later, another plane flew. Then another, and another - there must have been a convoy of 4 or 5 planes. I remembered our itinerary mentioning something about an optional flight-seeing part of our trip, but I hadn't thought much of it until now. I actually didn't expect a lot of planes to be flying with the turbulent weather earlier, but the weather was giving us a break - it looked like we wouldn't have to take the bone-rattling 3-hour bus ride on a slow road back to Moab. It would just be a quick a 35-minute flight, getting us back for dinner!

The last mile to the take-out seemed to take forever. A large steel arched bridge spanned the river near the take out - the highway 95 bridge. The sound of cars seemed alien after 3 days far from any road. The cliffs on both sides started to

get lower, eventually dropping almost down to the river - we could tell that's where the take-out would have to be. The Dirty Devil River met the Colorado nearby, depositing a large alluvial delta as the level of Lake Powell dropped. The canyon was wide-open for the first time during the trip - I had missed the wide-open spaces.

Two vans came to pick us up - we were going to be headed to the airport. I couldn't imagine where an airport would be, but our flight was scheduled for 3:00 and it was already 2:45 when we got in the van. Hmmm - were we even going to make the flight? We were driving for probably less than 10 minutes when we turned off the road to a frontage road on the right. Just a few hundred yards down the frontage road was a Cessna plane parked right on the road! And another behind it, and another. The "frontage road" was actually a runway! There was no tower or taxi-way. Four planes were lined up for us - each taking 5 passengers and the pilot.



Planes lined up for take-off

We were in the 2nd plane - our pilot Chip took pride in his profession. Pictures of his family were by the cockpit - I could tell this was something he really enjoyed and probably did almost every day. I felt a sense of relief in his calm demeanor and the way he checked everything carefully. We had our headphones on and could hear his instructions and communications with the other pilots. He mentioned where the white paper bag was in the seat pocket in front of us. The wind was gusting outside in sporadic bursts as some billowing cumulus clouds were forming to our south. I gritted my teeth, got my camera out (even if I was totally sick I didn't want to miss a beat), and fastened my seatbelt a little extra tight.

The plane in front of us was rolling down the runway and just a minute later we were following him. We were off the ground in just a few seconds - the single-engine 6-seater Cessna took off quite efficiently. We took off toward the SW into the wind before making a broad right turn to the NE back toward Moab. The Dirty

Devil river was cutting through the layer of Cedar Mesa sandstone and numerous canyons had formed sinuous paths though many flash floods and weathering. Buttes of Moenkopi sandstone capped with more persistent layers of darker Kayenta formed towers around the Dirty Devil River. Amphitheaters had formed from headward erosion of numerous side canyons.

The flight was taking our rafting trip in fast-reverse. We could often see all the way into the Colorado River, spotting the rapids we had run the previous day. Most of the rapids were clumped in one area, separated by large stretches of flat-water. The water was quite muddy, especially visible when we reached the confluence with the Green River at the beginning of the official Cataract canyon. The Green was coming in from the left, the darker water slowly mixing with the brown water of the Colorado, first forming a distinct line before dissipating downstream. The flows of the Green and Colorado appeared about equal and the water downstream formed a color of the average of the two rivers upstream.



Flying over Cataract Canyon

The Maze district of Canyonlands was on our left - a wonderland of pinnacles and hoodoos of Moenkopi and Chinle sandstone created a natural maze of canyons and narrow passages. We had seen the Doll House from the river, but now we were flying over it - seeing a birds-eye view of the 3-dimensional maze of formations. Most of the Maze is only reachable by rugged 4WD roads, and this time of year many of the roads had been washed out due to flash flooding. I didn't see any vehicles or tents nearby the formations - they appeared to be only reachable from the river this time (unless we parachuted out of the plane!)

Continuing east toward Moab, we retraced our route upstream. The Island in the Sky lay nestled between the Green and Colorado rivers - my wife and I had hiked to Grandview point back in the spring, and we experienced some déjà vu again. Seeing the formations from the air added another dimension that cannot be described adequately in words. The White Rim sandstone further down was fractured into large blocks, opening into deep vertical-walled canyons below that

joined the main Colorado River canyon. Large openings under the blocks of White Rim appeared to contain caves and enormous natural arches, maybe hiding secret ruins lost to the ages - but the only way to get there now would be to parachute down from the plane and rappel down, or rock climb up from the river to the base of the overhanging jointed blocks of white sandstone. One section of the canyon was like a giant footprint of 3 toes maybe 1/4 mile across, if Godzilla had feet a mile long. An enormous overhanging white block on one of the toes was still where I remembered it from several visits - my visit in the spring, one in 2005 and a flyover the previous year (I first spotted it on a commercial flight from PA). "Godzilla's hangnail" was still sitting there, ready to topple at any moment.



Flying over Canyonlands

The bright cobalt-blue pools of a nearby potash plant were visible, the aerial perspective revealed the grand scale of the operation. Dead Horse point was just beyond, the visitor center perched on the edge of the towering cliffs. It was linked by a narrow neck of land about to split off and become an island in the near future. Countless other mesas and buttes from eons ago stretched into the horizon. Some batches of turbulence sprang up as thermals bounced around in the canyon below - I tightened my belt and my stomach and consoled myself that Moab was just a little bit further. A rain shower was passing just to the north - I remembered a National Geographic article with a pilot flying over a remote land and he wouldn't "fly though anything he couldn't see through" - the sheets of rain formed an opaque grey curtain just ahead.

We got closer to the monsoonal rainstorm before turning to the right - luck was with us, and the shower passed to the west of our landing strip. Amazingly we touched down on dry tarmac with a smooth landing - the pilot even commented it was smoother than he expected - nice! I was relieved to be on the ground again!

We were soon in the van, heading the few miles south back to the town of Moab. We passed the nearby Moab internment camp at Dalton Wells - the stone walls of a cistern and some cottonwood trees being the only really visible reminder of the Japanese internment camp. It was a dark chapter of American history and I was surprised it reached all the way to the wondrous natural playground in UT, but it reminded me to be thankful for the freedoms we have at the time to enjoy the beauty of God's creation.

My room at the Redstone Inn was ready - I ended up with the same room as 4 days ago. A hot shower, some unpacking and re-packing, and another shower cleansed my body and soul. It had been a wonderful adventure on the river and I couldn't wait to get back for another!

We celebrated at the historic Milt's diner - Moab's first diner, built in 1954. Burgers and milkshakes were a treat - again my favorites from being 10 years old! For some of us, this would be our final hurrah before flying out or driving on. But some people were continuing their adventure - some were planning to go rappelling the next day or hiking in Arches. I had booked a tour to the Fiery Furnace in Arches - it was a wonderland like the Doll House we had seen earlier. It is easily drivable to the trail, but to protect the pristine environment and to keep people from getting lost in the maze of narrow canyons, hikers are only allowed in with a special permit. On my last 2 trips to Arches, the permits were sold out weeks in advance, but this time I scored a permit (and once I had the permit, I even changed my flight out of SLC to post-pone it a day - it was worth it!)

A few of us went for drinks and a game of foosball at the "World Famous Woody's Tavern" down the street - I had never heard of it but it seemed to be worth a shot. UT had some strange drinking laws and a couple bars would only serve drinks if you had dinner there as well, but here they didn't mind. I guess now you could say it's "World Famous" since Gavin from the UK had joined our group - I guess he could tell his friends back home and it would become more world famous... I would definitely consider Cataract Canyon and Canyonlands to be "world famous" - if they weren't, they should be!



Thanks everyone for a great trip!

### CODA - Fiery Furnace / Timpanogos cave

Although the main objective of the trip was over, there was still more fun to be had! I picked up some breakfast at the nearby City Market and crashed in my room at the Redstone down the street for a little rest and relaxation.

The news of the recent Ferguson crisis was still going on - I wondered if it was going to turn into another crisis of racism like the Rodney King beatings? I wanted those troubles to stay far away. Soon afterward I heard rumors there was an earthquake in northern CA - but it sounded like it was in Napa or Sonoma or somewhere out of the bay area. And then I checked the weather forecast for the next day - it was clear overnight, but a round of rain was expected the next morning - bummer. I wonder if I should have headed back earlier? I hadn't expected a wet hike through the Fiery Furnace. Sleep came a bit anxiously that night. I had an anxious dream that some photos on my camera had developed a cracked pattern like death when I looked at them closely. I'm not sure what triggered the thought but when I double-checked my camera (remembering to take the battery out of the charger), the photos were as beautiful as I remembered them - whew!

### August 23

I woke to a steady rain outside - the forecast storm was blowing through after all. Checking out of the Redstone, I was on my way to the Arches national park visitor center. The tour was to start at 9:00 so I had to check in by 8:00. The rain was starting to pass but plenty of moisture was still in the air. I remained cautiously optimistic as I started to drive the 45 minutes to the Fiery Furnace trailhead.

The road to Delicate Arch and Wolfe Ranch was closed - flash flooding had covered part of the road. I kept my fingers crossed for the rest of the way. The Fiery Furnace lay in an uplifted section of Navajo and Entrada sandstone in one of the highest elevation parts of the park. As long as the road was clear and there wasn't any lightning and the rock wasn't too slick, we should be OK.

A belt of heavy rain was passing through around the Windows area of the park, the deluge pouring off the slabs and cliffs on the left. Many of the dark streaked sections were actually flowing with brilliant waterfalls - seeing the refreshing wetness in the desert was a rejuvenating experience where life was renewed. So much life in the park waited months for a moment such as this. Ribbons of water were flowing everywhere, streaming off a multitude of ledges and low spots in the nearby cliffs. The cryptobiotic soil was vibrant with life, sucking in the muchneeded moisture.

The rain had mostly abated by the time I reached the trailhead. I sipped my

coffee as the others started to show up - folks from the East coast, WA, and even as far as Australia were there to enjoy the natural wonders - I guess the Fiery Furnace was truly "world famous"! Our guide Dick from the park service showed up, leading us on a labyrinthine tour through the wonderland of rocks. The rain had stopped by the time we were moving, but ephemeral streams were flowing in the sandy soil. Our trail happened to be one of those streams, requiring hopping across the muddy water many times. Juniper trees smelled like Christmas from the revitalizing wetness.

Just before hitting the trail, I had to go back to the car to pick up something. Even though it was the middle of summer in a desert, and we were going to a blazing part of the park called the Fiery Furnace, I had to go back to the car to retrieve my fleece - it was just in the mid-50's by the time we were moving.

We entered our first narrow canyon to the "Walk-through Bridge". A pool of water formed at the base of an overhanging dry-falls. A natural amphitheater about 20 feet in diameter with a curving overhanging ledge all around about 12 feet high framed the pool. A pothole near the lip of the falls had drilled its way through, forming a small round opening. A formation had to be at least 3 feet of a minimum span, and be made from solid rock to be considered an arch - there were thousands in the park. The overhang with the pothole was an arch, the walk-through bridge was an arch, and another "crawl-through arch" also counted.

A few of us adventurous folks tried the spelunking through the "crawl-through" - a bypass took us back through a crack to the main trail. The Fiery Furnace was a vast playground of such bypasses and narrow passages. A waterfall rushed through one of the narrow cracks, a rarity in the canyon. Some dark clouds passed overhead again - another wave of weather was threatening. I was glad to get in as far as we did and to not get rained out. But just as we were coming out of the narrow canyon, we thought it might have been an airplane, but I'm pretty sure a couple rumbles of thunder were threatening. Lightning would cancel the tour immediately - I was hoping it was just a plane (and I think our guide was too!)

Luckily the weather passed and the sun even came out for a bit, lighting up the canyon in a warm glow of orange, red and purple. The red Entrada sandstone lit up in all kinds of erratic shapes. The vast underlying salt dome had pushed the rock, splitting it along many parallel joints. These joints opened up through wind, water, and chemical erosion into fantastic shapes containing many arches, narrow canyons, pinnacles, narrow ledges and tunnel-like cave passages.

Small stands of juniper trees grew in the sandy soil, surrounded by prickly pear cactuses, Mormon tea plants and sage. The greenery mixed with the deep red hues of the rock was striking. We soon came through a slot canyon about 5 feet

wide, walking on the naked sandstone before coming to an enormous amphitheater maybe 100 feet in diameter. Two arches overhead looked like giant eyes of a skull, each maybe 25 feet in diameter. We walked past a couple puddles - the guide said we didn't want to get our feet wet or disturb the brine shrimp living there (the pothole was actually an entire ecosystem). But another good reason was that the small "puddle" of muddy water was actually a waterfilled pothole perhaps 12 feet deep!



Panoramic view in the canyon

The "trail" was quite twisty, and without a proper map, the way on was in no way obvious. In a couple places, the correct route was to climb a steep sandstone fin, stem across a narrow canyon, slide down into a wash, and climb out the other side. Some people needed handholds or a boost up some of the steep sections. This was the adventure I was hoping for! I remembered some other people in our rafting group were going on a 4x4 tour including some rappelling today - there was much fun to be had all around!



Fantastic formations on the way

Traversing a ledge system, we followed some cliffs and meandered our way into another cave-like slot canyon, this time the canyon took us up a steep ramp of slick rock to a seeming dead end. But he mentioned we needed to look up - there was a huge arch directly over our heads! I hadn't even seen it, but it was maybe 50 feet above us and 50 feet wide, aptly named "Surprise arch" - I was quite surprised indeed - the Fiery Furnace was revealing its secrets slowly.

We ended up spending more than the 3 hours of our "official tour" through the Fiery Furnace - it was at least 3 1/2 of solid exploring! I thought it might have been cut short due to the weather, but the clouds enhanced the deep red hues of the canyon walls in places, making us move slowly for many photos. The tour was well worth the \$10 fee, especially considering some "outdoor adventure" companies were charging some \$75 for the same tour to go with their guides instead.

After the tour, the weather had cleared nicely - I was in the heart of the park and didn't have to get back to SLC until the evening. I decided to check out nearby Broken arch. Delicate arch was still closed. Broken arch was another one my wife and I had to skip on our previous trip - there were just too many! This time, the sun lit up the brilliant orange walls in bright hues, a striking contrast to the green sagebrush desert. Ominous dark clouds just to the north formed a vivid backdrop. Broken arch turned out to be much bigger than it first looked - maybe 50-60 feet across and 40 feet high. I had just gone through the arch and getting a couple photos when I noticed a guy climbing around to the right of the arch. He got to the very top, a narrow fin of sandstone with at least a 50-foot drop on both sides. He saw me looking up at him with my camera and he insisted I got some photos of his daring attempt of looking cool. And he did look guite impressive (my wife would have had a heart-attack if she saw me doing what he was about do to!) - he went up to a central joint in the arch where the rock dipped a bit and he jumped across! I clicked my shutter capturing him in mid-air like Superman! It looked like he was photoshopped in the sky above the soaring arch.

He immediately ran down to me where I showed him the picture - he hugged me in excitement and gave me his email when I promised I had to email him that photo! I excitedly sent him the photo but cautioned him that a broken back next time wasn't worth a photo. He nodded and was on his way.



Broken Arch

Alas it was getting late, and I started heading back out of the park, revisiting nearby Sand Dune arch and some of the vista points along the Salt Valley and La Sal mountains. Another band of clouds was starting to roll in, threatening another wave of showers. Back near the entrance, I wandered around the Courthouse wash petroglyphs - some of the largest in the park. They were actually visible from the freeway if one knew right where to look - the life-size forms were colored in red and black hues, protected under an overhang created by large fallen blocks.

On my way back north to Salt Lake City, I remembered the Japanese internment camp about 10 miles north of Moab. On my previous visit, I had remembered it quickly and spur of the moment. I had only read the sign even though the thought alone of such racial fear and hatred during WWII had brought tears to my eyes. This time, I parked and had a walk around. Several concrete slabs, maybe 20 feet across were evidently the foundations of some of the buildings of the camp. One still had a mostly intact fireplace. A small stand of cottonwood trees nearby was still growing nearby, a square of 4 trees, each maybe 24 inches in diameter could have easily been 70 years old.

Walking around to the back toward the cistern I remembered seeing earlier, I found an old path leading around a fence. The place felt so eerie and forlorn - the spirits of the people interned there seemed to still live in the air. The cistern was about 15 feet across, the stone work still mostly intact to the point it would still hold water. A small horse corral lay behind the cistern. On my way back to the car, as I was walking the lonely path, I looked down and the mud of the dirt from the recent rains had dried and cracked in pattern like death - straight out of the dream. I was glad to be leaving and I hastened my pace to the car.

Three hours later I was checking into my motel in Salt Lake City - quite an eventful day indeed! A quick Subway down the street for dinner and some time in front of the TV helped me unwind. Big Bang replaced the evening news for the program of choice - there was enough bad news already going on in the world...,

#### August 24

I had gotten tickets to nearby Timpanogos cave, just about 1/2 hour south of Salt Lake City. Checking out and heading up to the cave, I headed south and east along highway 92 high into the Wasatch Mountains. A dusting of snow had fallen the previous evening above 10,000 feet, an early sign of winter. After several years of drought I had hoped for a productive winter, and maybe this was a good foreshadowing.

Timpanogos Cave national monument was actually 3 caves joined by tunnels the first being Hansen's cave. then followed by "Middle cave", then Timpanogos (proper) cave. These caves had been known for almost 100 years, and thanks to these connector tunnels, they are now easily accessible to the public. The 1000ft switch-backing trail up the American Fork canyon was tiring but the rewarding views more than made up for the steep climb.

Concerns about White-Nose syndrome had reached all the way to the monument - the rangers were careful to make sure we were all screened properly and weren't wearing any clothes or taking any articles that had been into any other cave. I thought that measure was a bit extreme, but I played my part anyway. Nisha's camera had been a backup on the river in case anything happened to mine. But since we hadn't taken it into the caves on our recent trip to Lava Beds, it was still "good" to go. And I had a new pair of sneakers I had bought for our trip to Europe a month ago, so those were good to go as well - nice!

I had been to many "show" caves and "wild" caves, but I felt privileged to see Timpanogos cave. It was one of the finer high-altitude caves in the US, consisting of beautiful helectites, clear pools, giant flowstone formations, and halls of aragonite. People from all around the US (and even many internationally) came to witness the natural wonder. Although many formations were broken and removed in Hansen's cave, the formations in Timpanogos were wonderfully pristine, protected since near its discovery. The aragonite crystals looked like we were inside an enormous geode near the "heart" of the cave.



Formations in Timpanogos Cave

After the cave, I took a round-about route, looping high into the Wasatch range, near the pass where a trail continues up to Mt Timpanogos itself. The pass was around 8000 feet where beautiful stands of shining white-trunked aspen trees stood. The snow-dusted summit was visible beyond a flower-studded alpine meadow - I wished I had another day! Completing the loop, the road passed around the Sundance ski resort before looping back toward highway 15. Several waterfalls flowed from the lower slopes of the mountains in Provo canyon on the way.

Just a ways further on the left was a sign for Bridal Veil Falls. I didn't have much time and I had a flight to catch, but the name sounded intriguing. Although it was an afterthought to make a visit, the falls dropped over 600 feet, making for the highest waterfall in UT! Many people were on a trail to a ledge about 1/3 of the way up the falls - I couldn't resist but run up for a quick look, even if I had to scramble for my flight! The water was cool and refreshing, clearing my thoughts and cementing the wonderful memories of the last week. I knew I would be filing for unemployment, and starting full job-hunting mode in just the next few days...

Heading back down the narrow trail from the falls, I was soon back on highway 15 north toward the SLC airport. Returning the car and checking in, I was soon getting on board my Southwest flight, connecting through Las Vegas on the way back home to San Jose. The sunset alpenglow lit up the broad Coconino band of sandstone on the Grand Canyon as we flew over - a final "Amen" to a wonderful experience in Utah. I was happy to be back home with my wife and have some great stories to tell, until the next adventure!



Sunset over the Grand Canyon on the flight home