

PLAN B

We left the restaurant-bar at nine on that Friday night, allegedly to catch a taxi back to the hotel. The three of us, Rick Moeckel, Davide Ferrario, and myself, had split off from a group of a dozen mathematicians most of whom were still sitting watching the opening ceremony of the Olympics in Rio airing on big-screen TV inside the restaurant-bar. The restaurant-bar sat along one of the four sides of the Jardin de La Reunion, the main plaza in the center of Guanajuato, in the center of Mexico. The Olympic speeches and shows continued to air from all the restaurants and bars we walked out of the plaza in the Jardin de La Reunion. My Brazilian friend, Jair, must surely be still sitting in the restaurant-bar we left, providing a running commentary on the unsavory predatory nature of the each Brazilian politician and Olympic official as his necktied, suited-up face appeared on screen issuing canned speeches.

The streets, sidewalks and plazas streamed with rivers of people. Our eventual goal was a hotel called Cimatel, which is a residential hotel run by the mathematics institute whose conference we had been attending. Cimatel lay about a 1000 feet up one of the steep hills surrounding Guanajuato, and about 6 kilometers away. It was in the small town of Valenciana which housed the institute and, back in the 1500s, housed the richest silver mine in the world. Guanajuato itself is a small densely populated city of about 70,000 tucked into mountains at 7,000 feet, about as far from the ocean as you can get in Mexico. Wait a minute! I do not mean to write a tourist guide. Please: go to the wikipedia entry for Guanajuato for that direction.

An hour later, and we were still fishing for taxis. Collectively we had hailed over 50 taxis. Inevitably, some family, or hobbled old woman grabbed the taxi before we could, or the taxi was already full of passengers, or on its way to another customer, or waiting for someone who had called him... . Perhaps a few of the

drivers just didn't like our looks. We were at a distinct disadvantage from all the other taxi-fishermen: none of us carried cell phones that worked in Mexico.

Our first taxi-fishing spot had been at a corner two blocks from the bar-restaurant. Many taxis came by. Four stopped but immediately gobbled up whole families. Rick believed we should have just waited there. If our true goal was to get back to Valenciana, he was probably right. Instead, we decided to try our luck elsewhere. We walked out of the tourist epicenter of Jardin de La Reunion, vaguely in the direction of Valenciana, hailing taxis as we went. We got to the big Mercado – a huge quonset hut in the center of town. We fished there awhile. No luck. We went a bit further to the far end of a major bus stop. Maybe 60 people were waiting for buses. We hailed at the end of that line for awhile, blinded by the headlights of oncoming buses. Many taxis passed us by.

In the casinos of Las Vegas you will see certain people going from slot machine to slot machine, searching for that magic “lucky slot machine” – that rare machine, the El Dorado, which gives frequent high payouts. That was us. We thought we had found our lucky taxi slot machine between the Mercado and the big supermarket, Commercial Mexicana, at a junction where two streams of traffic meet head-on and then bifurcate into three diverging paths, one of which goes right to Valenciana. Davide was fishing one stream, Rick and I were fishing the other stream. But after fifteen minutes or so of failure we decided to move on.

We quickly reached the supermercado, Commercial Mexicana, with its rooftop parking lot and eternal crowds and saw a waiting taxi. For an instant we thought we had hit the jackpot. But before we got within 20 meters of that taxi a group of people entered it. Then we saw the line of spent shoppers, most cradling their smart phones, waiting for taxis, and calling taxis. The situation there was clearly hopeless. We hung out in Commercial Mexicana for a few minutes and moved on.

Further on, we stumbled into another intersection where two streams of traffic converged. One had taxis! We waited there 5 minutes, missing two taxis. By now we were far from the Jardin de La Reunion and there were very few tourists.

At the outset of our odyssey Rick had said he did not want to walk far, having walked down the hill from Valenciana two nights before. And we had already been walking over a kilometer, flagging taxis for more than a half an hour. The bars were full. The busstops were full. The taquerias were full. All over, couples and families were unsuccessfully fishing for taxis. It was nearly ten at night. Little children were getting helados (ice creams) or a last tamale. Even littler children were being pushed in strollers at the edge of the traffic streams. I felt a sense of desperation building. Together with a sense of urinary urgency.

We returned to our lucky slot machine and stationed ourselves there, fishing for taxis for another 20 minutes. No luck. By now I had to pee badly. I went into a taqueria. It was warm and packed and cheerful, but its bathroom was full and had a line. I came back out.

We were all coming to the conclusion that it was time for an alternate plan, a Plan B. The plan B we developed was to return to the tourist center, Jardin de La Reunion. On the way we would find a bar so I could pee. We would hang out at that bar, rest, resupply, and wait out the worst of the Friday night rush hour in Guanajuato. Then we would make another foray for taxis.

In the back of my mind I had already designed my own private plan B. Having lived in Guanajuato 20 years ago, a part of me still knew streets and directions. I was sure that I could get to the glorieta (round-about) at Dos Rios, where I used to catch taxis up to Valenciana. From that glorieta, all upward traffic has only one place to go: Valenciana. In my personal alternate plan B we would get to Dos Rios, and grab a taxi there in less than 5 minutes. And if that failed, plan C could kick in: walking up the hill to Valenciana. I had done it many times. The problem, again, was Rick did not want to walk. One might add that the road was almost a highway, neither fun, nor safe during the day, and certainly less so at night. Let us forget about that issue. The road would take us there! And if the road was too sketchy I could find the dirt path, up beyond San Xavier. Probably. There might be dogs at night... . Now Rick, having known me for a decade, had some inkling

of my secret Plan B and seemed to keep insisting that he did not want to walk all the way to Valenciana. The walk to Valenciana was calling – a surefire solution. But come on, Rick did not want to walk. The reason I had gone downtown to the restaurant-bar in the first place was to socialize with the mathematicians from the conference. And I was socializing in some vague sense, right now, no? Is something inherently wrong with socializing while taxi-hunting?

What is wrong, is something with me. My predilection for pessimism. I was encouraging a sense of desperation to seep in to my soul, a desperate pessimism which was whispering to me things like: “We will never get a taxi! Never! Never! We will be here all night, trying to get taxis. And where will I sleep? On some rank cave of a doorstep with other homeless people?” Having Rick nonchalantly whistling behind me as we walked helped relieve my ridiculous desperation.

As we began implementing our group Plan B I saw a sign to the Alhondiga, the stone block of a fortress where the first Mexican War of Independence had begun, and which was now converted to a museum. I knew how to get to Dos Rios from the Alhondiga. I aimed our trio up towards the Alhondiga which is along Calle 28 de Septiembre, really the only other East-West street in central Guanajuato, besides the main street we had been walking on. When I walked through the center of Guanajuato for the first week of my year here, I felt like I was walking in a crazy maze. A hundred thousands tiny streets running every which way. After a month a map began to form in my mind, one of the main features of which was that there were really only the two streets running West-East thru the center of town, Avenida Benito Juarez, and Calle 28 de Septiembre (which later changes its name to Positos). Actually, I never knew the names of either street. I looked them up on a map just now, but I know how they feel and look, roughly where they go, and what businesses and monuments are along them. In my mind’s map, Avenida Benito Juarez, the street we had been walking the whole time, carries almost all of the traffic. In my mind’s map, Av. B. Juarez approximates a space-filling curve. (For you non-mathematicians, a space-filling curve is a curve which

winds from one corner of a square to the opposite corner, and in the process goes through every single point of the square. Space-filling curves always have infinite length, hence the long travel times through the center of Guanajuato if you are travelling in a car. Guanajuato has solved its space-filling traffic jam problem by going three-dimensional and having numerous tunnels carrying traffic under their primary space-filling traffic artery.) Calle 28 de Septiembre and lies perhaps 15 meters up the hill from Avenida Benito Jaurez, and in my mind's map is essentially straight. It is one lane. It is cobblestoned. People walk down the center of the street. Cars move slowly along it, generally. It is a joy to walk.

By aiming us towards the Alhondiga, I was semi-consciously starting to implement my secret plan B. But again, I remind myself of Rick's wishes and when we made it up to Calle 28 de Septiembre I I do the right thing. I direct us right, back towards the center, not left towards Dos Rios.

Calle 28 de Septiembre is Guanajuato's version of a university town's campus main drag, a street found in every university town in America, a street with bars, cafes, tourist knick-knacks, tee-shirts, and, with luck, some book stores. It is full of students. The main entrance to the University abuts it. One difference between Guanajuato's "College Avenue" and those of the U.S. university towns, is that here the entrances to the bars and cafes look like entrances to mines.

After awhile, we found a friendly-feeling bar whose entrance was a door-in-a-wall. From the outside it looked miniscule. When we ducked in, it opened upwards and had ample room, including a second floor. Rick summoned his Spanish and asked the bartender if he were open. Yes. And then, Rick asked him if he would he would call a taxi for us after we had had something to drink? Of course.

I was impressed by Rick's Spanish. His request to the bartender was nontrivial. And Rick had used the dreaded subjunctive. Over the years Rick and I have compared struggles with attempting French in Paris. We both go there for the same reason: to talk, listen, and work at the same place, the Bureau des Longitudes,



FIGURE 1. Davide and I in the bar. Frida and Diego looking on.
—courtesy Rick Moeckel.

77 rue Denfert Rouchereau, a Stalinesque building which houses the world’s pre-eminent team of mathematical celestial mechanics. Rick says he is giving up on French, that what he hears when Parisians talk is approximated by “zhuzhusueebonjourmesamiscommentallevvouszhuzhunezpah?” , their words all running together into a single unbroken soupy noodle of sound. He is optimistic with Spanish. He can hear individual words. He is taking night classes in Spanish.

I really need the bathroom. I ask Rick to order me a tequila. There are four posters of Marilyn Monroe in the bathroom. Yep. Four. I sure still do like the way she looked! The tequilas are there when I return. The subject of music comes up in our fledgling bar conversation. Davide’s story begins to unfold.

“I didn’t start studying mathematics right away. I was a musician.”

“I didn’t know that. What did you play? ”

“Piano. I was in the conservatory. I was very serious.”

“Did you start young? ”

“I don’t know. Maybe 11, 12. I got very serious about it, at about 14.”

“Classical music?”

“Yes. But I also played pop and jazz-fusion, in night clubs. It was very good money. I played with an opera singer.”

“She played in the jazz fusion group?”

“No. I played with her for the opera. So I had three jobs: the conservatory, the night-clubs and the opera. I would sometimes play twelve hours a day.”

“What happened?”

“I got an injury.”

I imagine a band saw involved with Davide’s elegant right hand.

“What happened.”

“My little finger. A joint in my little finger.” He wiggles the little finger of his right hand. “ It stopped working completely. It was overuse. ”

I love Davide’s accent, a slight Italian with maybe a hint of German The silent ‘e’ in ‘use’ is just barely pronounced, as in “you-seh”.

He continues. “It was very frustRAting. I had found the one thing I wanted to spend my time doing. And I could not do it.”

I knew how Davide felt. I wanted to tell David my story, but it was not the time.

“I tried exercises. I went to doctors. I had an interview with a surgeon to try to fix it. But it was a kind of thing that he could not fix. There was no surgery that would work. I tried for a year to find a solution. Then I gave up. There was nothing I could do about it. ”

An intensity builds in Davide’s face. “ I thought, well , what well what can I do now? I was good with mathematics as a child.” The ‘i’ of child comes out long, almost two vowels. “But what I really wanted to do, what I loved, was music. But I could not do it now So I started back again in mathematics. I studied fiercely. I did not even want to think about music. ”

“The mathematics came easy to me. Some of my colleagues would be angry with me. They had been doing mathematics for four years. I had been playing piano the first two years of university. Then I come along and still finish in four years. Well, it is somehow easy for me, mathematics. But it was my second choice.”

“And music. Did you play at all, after you started doing mathematics?”

I am thinking of Chris Golé and Gil Bor, how much they love piano, how they played together, both sitting at the piano bench up at Gil’s house above Valenciana

last night. Gil has been playing steadily since he was a teenager, but he claims he is not really any good “I just bang on the keys. I only had two years of training. Now Chris! Chris can play! ” Gil dismisses his skills but gets such joy from it.

“No.” he says firmly. “I did NOT play. For almost twenty-five years.”

“Not at all?” I ask.

“A few times. At conferences in Poland, when the rounds of vodka were enough to let me forget the frustration, and play popular Russian or Italian songs with a group of drunken Russian and Polish mathematicians, at the end of the social dinner. But I do not count it. It was hammering half-drunkenly my fingers on the piano keyboard, not playing the piano.”

“And now?”

“My daughter asked me to accompany her. She plays the violin. She is quite good. She also has the sense for music. ”

“Did you say yes?”

“Yes. Yes, I accompany her on the piano now.”

“Does it work?”

“Somehow, yes. It works. I can now play with both hands. I do a lot of martial arts. The exercisES have strengthened my hands. I can use the right hand now. It is not so flexible, but it is stronger. It works.”

“What kind of martial arts?”

He says some multi-syllable chinese-sounding name I could not begin to repeat. And he also says “kung-fu” which I have heard of.

“For how long?”

“Eight or ten years.”

“Do you enjoy playing the piano now?”

“ Yes. But it is frustRAting. My nerves know what to do. But my hands, the muscles somehow cannot do it.”

I remember Chuck describing exactly the same feeling to me. Chuck is one of my main living kayak friends and was a national-champion level racer of whitewater

slalom kayaks in his 20s. “Our nervous systems know what to do Richard. We just can’t do it.” Chuck and I know well the possible consequences of a failure of our muscles to follow our nerve’s instructions. The scenario goes like this. We scout a rapid. We see the route. We decide to run it. I go first. I make the first drop fine. As I am landing at the bottom of that first drop, I must take a sharp stroke on my right to pop my boat into the bottom of the washed-out eddy there. The eddy’s help, combined with my paddle, will direct me ninety degrees to the current at which point I must take about four hard strokes, to make it about 4 meters to the left where I will quickly spin downstream, aiming my boat 45 degrees to the current, towards the river left and boof the remaining six foot drop, placing my boat for the boof about 2 feet off of the large boulder which defines the left side of that second chute. I miss a stroke as I cross the washed out eddy. Or I only clip the bottom of the eddy. Or I’m just not as strong as I used to be. Instead of being 2 feet off the boulder I am 6 feet off the boulder. Instead of heading 45 degrees river left, I am headed straight downstream. I know there is a large hole coming up – a white reversal where the water is churning upstream. Chances are I will punch through the hole, scramble a bit, and be fine. But there is a chance that when I hit the hole I will get sucked back in and trashed. From that point, there is a chance I will have to swim out of my boat. At that point, there is a good chance I will have to swim through the seive immediately downstream of the hole, and that seive is potential death trap.

Ahh the pleasures of aging.

Part of me wants to tell Davide about my own injury, how it made me begin to give up my own dream, how I had to suffer for one year through that same horrible doubt of not knowing whether or not I would be able to follow my calling. But unlike Davide, my injury eventually healed, and dealing with it even improved my paddling. A more global injury to the earth pushed me off my plan A and into mathematics.

My physical injury, although its time scale was trivially short compared to Davide's, dominated my life at the time. Nestling into my tequila there at the bar, my muscles twitched with the desire to raise up my arms in front of my face, forearm muscles facing each other, a gesture I have made to a hundred of people over the decades. If I had, then I would have made fists. When I squeezed my two fists, Davide would have seen how the right arm muscle is misshapen relative to the left. The whole muscle belly of the inside of my right arm has been pulled back, exposing a hollow in the tendons near my wrist and yielding a four-inch bulge half-way down towards the elbow. When I was 17 I was racing against Chuck's brother Bill on the flatwater of Aquatic Park in Berkeley. My technique was horrible but I was in great cardiovascular shape, strong as an ox and I paddled like a demon. In the explosive punch of the forward stroke I did not keep my hand and forearm aligned. Midway through my race, the back reaction of my forward punch, combined with the stress focused on my wrist by the bend I would make there to properly place the feathered paddle, caused something to snap inside my right forearm, pulling the entire muscle belly back towards my elbow.

After that paddling hurt. My right wrist and forearm would swell with every weekend paddle. I paddled anyways. I would rest the arm, a week, two, three. But my whole being was invested in kayaking and I would start up again. And it would hurt and swell again. A paddling buddy, Ron Stradiatto, an emergency room doctor in his residency in Oakland, California, to become an orthopedic surgeon, tried to help me. He took me to doctors all over the San Francisco Bay Area. Prognosis? Tendonitis, i.e inflammation of the tendon. Cure? Umm, let's see. Cortisone shots. But those just provide temporary relief, and long-term reliance on cortisone dissolves tendons. No thanks. Immobilization. I tried it for awhile. But I could not paddle in the cast. And I heard about a women who had tendonitis in her leg. She had taken her doctor's advice to immobilize her leg with a cast. When they took off that cast *five years* later, her leg was just skin and bones. And the tendonitis was still there. An operation? – no. There is no operation for tendonitis.

I became deeply depressed. All I wanted to do was paddle rivers. I kept paddling despite the pain. The arm kept hurting and getting worse. I took a job in the Sierra Foothills in February of 1975 as a kayak instructor. Through that job I was befriended by Michael Snead, a charismatic new-age kayak-teaching guru. Through Snead I met Dale Calloway, a somewhat disturbed man who had had some significant injuries healed through acupuncture. This was long before acupuncture was mainstream in the US. Dale's wife was Chinese and had introduced Dale to a traditional Chinese acupuncturist in San Francisco's Chinatown. By a stroke of luck, I got mononucleosis up in the Sierras, not long after listening to Dale's persistent insistences that acupuncture would cure me. I took a six week leave from my kayak instructor job, and moved out of the Foothills, back down to Berkeley and set up an appointment with this acupuncturist. During that time of healing and rest I insisted on living in a hammock in a large oriental elm behind my mother's house. She would raise and lower me meals by a rope. (My poor mother.) Two days a week I would take the bus to Chinatown to be treated by this acupuncturist. He spoke little English. He stuck needles in my arm, right between the two bones of my forearm. They would go half way thru my arm and sit there. Sometimes he would run current through the needles and my hand would jump like a frog's leg. After seven sessions with him, I could paddle without pain.

As important as the acupuncturist was to my cure, I would not have been able to continue paddling if I had not absorbed two lessons from my body and from the advice of other paddlers. Lesson one: paddle with bones aligned with each other, no bend in wrist, bones aligned with the acceleration vector they imparted to the paddle. Lesson two: paddle regularly, at least every other day. The worst thing you can do for a soft tissue injury is to be a weekend warrior: paddle like crazy on the weekends and do no paddling during the week.

Thanks to Dale Calloway's advice, some ability to listen, mononucleosis, and my mother's welcoming home, I was back in business: paddling up in California's Sierras full time, following my dream. What forced me into my plan B was the

construction of the New Melones Dam on the Stanislaus River. This dam was the last of the major dams built in the Sierra Nevada Foothills. Construction began the year I moved up to the Sierras. The dam eventually destroyed the entire section of river on which I made my livelihood, over 15 miles destroyed in all. It destroyed one of the two river economies in California. The building of that dam, combined with the huge 3 year drought of 1975-78 meant that there was going to be no work for me as a kayaker. So I also looked around for a plan B. Like Davide, I too had been very good at mathematics as a child. Like Davide, my plan B became mathematics.

But looking back now, if I am honest, I think the true reason that I stopped paddling full time, that I demoted river life and river paddling from being my Plan A, was that it was just too painful witness the destruction of this entire river canyon. The Stanislaus canyon was a place I had grown to love more than any place on earth. There were routes available to continuing along Plan A. I could have made a living as a dishwasher, construction worker, ski instructor or some damn kind of work that I would give a shit about. I could have worked enough to eat and afford to paddle, putting all my energy into kayaking. Two years after I left the dying Stanislaus canyon I found a role model in Santa Rosa California who lived exactly like this, my good friend Lars.

But I followed Plan B, mathematics, exponentially increasing my fanatic devotion to math. Still, in the summers, during Spring break, or on long-weekend expeditions during the winter, I would temporarily return to Plan A. I would subject myself to a 30 year long mild schizophrenia whose symptoms included the continual wondering “should I just be paddling?” and “wouldn’t I really be happier if I just paddled, all the time, like Lars?” I often lived vicariously through Lars, enjoying his stories of first-descents down rivers in Peru, Chile, Alaska as well as California; knowing that I had an open invitation to join him, not seeing how I could possibly join him in his latest adventure and finish my PhD, or publish during my Postdoc, or get tenure, or ... and on and on, this questioning, questioning, questioning, this



FIGURE 2. The University of Guanajuato entrance, seen from Calle de Septiembre 28.

letting go, all those lost opportunities for adventure and camaraderie until my physical prowess had waned and Lars, my alter ego, died young, in 2009, in his early 50s.

Math won my schizophrenic battles. Plan B has become Plan A. But still, my most joyous being comes out on the water, as I find my way down challenging rapids, dancing eddy to eddy. Running rapids, especially without scouting, is a wonderful spontaneous problem solving on the fly existence, improvising as you go, surrounded by moving water, worn stone, a slice of sky and the forest around.

I keep this to myself. I tell myself that my math/kayak schizophrenia, my own war of the Plans, is insubstantial next to the agony Davide suffered, the agony of having to utterly and completely give up one's love, one's calling. It is not the time to tell my story.

By now, we had finished our tequilas and the conversation was winding down. We asked the bar tender for the bill. The bartender makes the taxi call. No answer. He makes another. They are busy. He tries four taxi companys in all. None respond. The streets of Guanajuato at ten thirty at night are still full of young families, old couples, streams of people, battling each other for a free taxi. Giving up on the calls, the bartender gives us directions to what he tells us is THE failproof place for getting a taxi, a corner where two major streams of traffic converged ,

right near the Correo (Post Office). We follow his directions, continuing our walk towards the center, past the towering steep concrete step entrance to the University of Guanajuato, heading for the next way-station of the bartender' directions, the Iglesia (church). Look! A taxi is coming towards us, up the street. Davide runs towards it, jumping into the street in his enthusiasm to escape taxi limbo. The taxi stops. It is free! Plan B succeeds.