

CHAPTER 8

Berzerkeley

I crossed the Nevada-California state line at Lake Tahoe and wound down California Highway 50 into the ninety-degree Central Valley, thinking back to my trip six years earlier after the Andes expedition with Gary, when I drove the T-bird convertible cross country from West Point. So much had changed since then. This time I was in a battered Volkswagen camper, and my goal was radical Berkeley, not conservative blue-blood Stanford. America's obsession with Vietnam was beginning to wane, and now, instead of the radio alternating between "Ballad of the Green Berets" and "Unknown Soldier," I was smiling to the irreverent lyrics of one of 1972's Top Twenty hits, Chuck Berry's "My Ding-a-Ling." I crossed the scorching onion fields east of Sacramento, and the van smelled like I had collided with a hay wagon of Lipton's Dried Onion Soup. Suddenly the coolness of San Francisco Bay, thick with the scent of eucalyptus and salt air, brought my overheated body back to life. I exited the freeway at University Avenue and drove up Hearst to Northside to Jonathan's home. He pulled out my footlocker, still sealed with freight and customs stickers, and invited me to crash in his spare room while I looked for my own place. After a week of checking the bulletin boards at Safeway and the Co-Op, I'd found a small apartment in the cellar of a huge house on Cedar Street, just above Euclid. The flat had a low ceiling, well below code, but it was quiet and was so high up on the hill that the skyscrapers of San Francisco and the Golden Gate Bridge were visible from my basement window.

I walked down Euclid and through campus, pausing in Sproul Plaza to recall the news clips of only a few short years earlier, when reporters had broadcast grainy, jerky footage of helicopters tear-gassing anti-war demonstrators. The atmosphere now was completely different. Low-key but highly educated police officers chuckled in amusement at a suntanned student who, except for his backpack, was walking toward the Student Union completely naked. I continued south onto Telegraph Avenue, where street artists, Hare Krishnas, aging hippies, and panhandlers mixed with Bible-thumpers and soapbox politicians. Sandalwood incense from the head shops, music from used record shops and sidewalk guitarists, People's Park, cafés, and the famous used bookstores Moe's and Cody's. I'd never seen a place with so many free spirits from all walks of life. I loved it.

The thought of living in this permanent circus sideshow captured my heart, but I didn't know how I would survive financially. I still had the ten thousand dollars I'd saved in Vietnam, since the year in Göttingen was paid by the Fulbright award, and I could count on the \$200 a month from the GI Bill. Tuition for out-of-state students, however, was triple that for California residents, and for a walk-on like me that could quickly devour everything. I had anticipated this, so fifteen months earlier, just before leaving St. Louis for the year in Germany, I had traded legal advice on California residency from a Los Angeles attorney in exchange for my promise to ship him out-of-stock Mercedes parts from Germany. Based on his tips, I drove from St. Louis to Barstow,

the nearest city in California, and took the California driver's license tests using Jim Eberhardt's home address in Felton, a tiny village in the Santa Cruz Mountains. Then, from Germany, I had filed a California State Income Tax return and voted in the next Felton dogcatcher election by absentee ballot.

Now, as I was starting the graduate student registration process in Sproul Hall, came the acid test. A sign said *If you have been outside California for more than 3 of the past 12 months, go to Window C.*

"Do you have a California driver's license?" asked the clerk at Window C.

"Sure," I replied casually, as I slowly opened my wallet.

"Did you vote in a California election during the past year? File a State Income Tax Return? Do you have utilities receipts?"

"I didn't bring any electric bills," I said, "but I have the rest." I handed her a manila envelope.

After glancing at the Santa Cruz County voter's receipt and photocopy of my California tax return – bottom line zero taxable income – she stamped my tuition fee form *CALIFORNIA RESIDENT*. I figured that little stamp doubled my student financial life expectancy.

Now I could concentrate on academics. Berkeley had taken a chance admitting me to their mathematics PhD program, perhaps encouraged by a letter of reference from Professor Hillier, my Stanford advisor, or perhaps based on my Graduate Records Exam score in mathematics. There were other walk-ons besides me, but as far as I knew, I was the only PhD candidate admitted to the program who did not have any formal degree in mathematics, and the only Vietnam veteran. I had never heard of any other West Point graduate who even tried to get a PhD at Berkeley in math. Since Berkeley consistently earned first rank in the National Research Council's standings of mathematics departments, I knew that competition would be stiff. Berkeley's crop of pure and applied postgraduate math majors were the best of their generations. They'd been undergraduate math majors at Harvard, Chicago, Cal Tech, and Princeton, or superstar math students at smaller colleges and universities. My temporary goal was to last at least one academic quarter – just ten short weeks plus exams – a little shorter than Beast Barracks had been, and one week longer than Ranger School.

Next stop was an appointment with my faculty advisor in Evans Hall, the uninspired ten-story gray cement box facing Hearst Mining Circle and the Berkeley Hills to the east, with a spectacular view of San Francisco and the Golden Gate Bridge to the west. Mathematics laid claim to the top four floors, with Economics and Statistics below. I walked down the halls, lit by fluorescent lights, stopping to read the bulletin boards, covered with seminar and conference announcements. What an adventure and privilege this would be, whatever the outcome.

My first academic advisor, Professor Michel Loève, was an old-world French mathematician whose blend of enthusiasm and demand for rigorous thinking reminded me of my first calculus teacher Nohel at Madison. Loève's two-volume probability text, dedicated *To the students and the teachers of the School in the Camp de Drancy*, was considered the first comprehensive treatment of modern probability. Known by many experts as *The Bible for probability theory*, it had even been translated into Russian.

"You have a very unusual background," said Professor Loève as he looked through my folder. "I figure you lost about four or five years of mathematics in the army."

Loève knew first hand about losing time away from mathematics. Born in Jaffa, and educated in Alexandria and Paris, Professor Loève had somehow survived imprisonment in the internment camp at Drancy, a Nazi facility for confining Jews en route to the extermination camps. Loève told me that my year in Göttingen had helped, but now I really had my work cut out for me. The requirements included language exams – two out of three from French, German, and Russian – two research seminar talks, three oral exams, and the dissertation. He said he would recommend courses to help bring me up to speed, but most of it was up to me.

I signed up for Loève's undergraduate course in measure theory and a graduate course in probability and rented a university gym locker. I knew the mental ordeal ahead would require frequent cardiovascular flushings, to cleanse my brain and relax my body. With the first day of classes, I settled down to a rigorous schedule, studying seven days a week, 12 to 16 hours a day, with the few remaining waking hours practicing judo, playing racquetball, and motorcycling in the East Bay's Tilden Park. I'd left my Beesa with my brothers in St. Louis and shipped only the Triumph 650 to Berkeley. On Sunday morning, I allowed myself the luxury of reading the color comics in the *San Francisco Chronicle*. No dating, no fancy restaurant meals, no trashy novels, no watching football on TV, no running around making friends. Two years of monastic living should about do it, I figured, just to make it through all the requirements except for the dissertation.

My classmates, most of them six or seven years my junior, had been undergraduate math majors and many had won summer math internships and undergraduate research fellowships. For me, because my basic math vocabulary was so deficient, it often took days before I even understood the words in a homework problem. But I reminded myself of the miseries of Ranger School and kept chipping away hour after hour, day after day. I assumed that we were supposed to solve every one of the eight new probability problems assigned each week, and even after racking my brain the whole week, there were always one or two I couldn't crack.

"What do these scores mean?" a classmate in probability asked the professor six weeks into the term, after he'd handed back graded homework for the first time. "How should we be doing?"

"Oh, you're doing very well if you get forty percent," he answered. I just shook my head. My scores were running about eighty percent. I was glad I didn't find out earlier, or I might not have pushed so hard. Unlike West Point homework, and the master's level classes at Stanford, these PhD-level Berkeley homeworks were not problems every student was expected to be able to solve, but the professor had never bothered to tell us that.

At Stanford I had found it very useful to think about math problems while motorcycling. Leaning my Triumph into the hairpin turns on Old Tunnel Road, the beauty and power of this whole new level of mathematics overwhelmed me. I struggled to try to develop some intuition behind these powerful concepts. Kolmogorov's Zero-One Law, for example, said that certain types of events were either guaranteed to happen or would never happen. If you were flipping coins, fair or not, then you either were certain to get an infinite number of heads or certain not to, no matter what coins you used. Almost every waking hour I struggled just trying to understand the basic concepts, but I never thought of quitting mathematics. Perhaps I would fail out of Berkeley and have to restart at a different university and lower level, but not quit. I felt it in my blood.

My perseverance with the homeworks paid off, and I passed measure theory with an A, and graduate probability with an A-minus. I had never been that mentally exhausted in my life, but somehow I had survived the first term in the PhD program of the best university mathematics department in the country. My brain felt numb, and I knew that I needed more of a cure than a few hours of racquetball or motorcycling.

I packed my VW van with camping gear and headed south along Scenic Coastal Highway One, following the same route Jon Steel and I had taken on motorcycles in 1966, across the border into Baja California. After a week of relaxing alone in the desert, beachcombing along the turquoise Baja shores, and feasting on fresh fish tacos, on New Year's Day 1973, I turned back north. Crossing a small valley on the main highway between Ensenada and Tijuana, I saw a lone middle-aged Mexican man standing on the road, frantically waving his hands to flag me down. I pulled over to the side.

"*Accidente,*" he shouted. "*Hombres muertos!*"

That part of the highway crossed the valley on a tall earthen levee, and I could see far down the road ahead of and behind me, and the desert floor in the distance below, off to both sides. The only movement was shimmering waves of air that rose above the baked earth and disappeared into the desert landscape on the horizon. The man motioned me out of the car and down the slope, toward the ravine off the shoulder that was out of sight from the road above. I had taken four or five steps when shadows behind me suddenly caught my eye. Two men emerged from hiding in the depression on the opposite slope of the road and were walking toward me. My first thought was they were going to rob me, so I wheeled around and crouched in a defensive hand-to-hand combat stance, hands raised, ready to parry and chop. To my great surprise, the two men staggered past me, down to the edge of the slope where the other man stood. One of the two newcomers spoke some English.

"Accident," he said. "Come here."

A car had gone over the edge of the twenty-foot drop-off and smashed headfirst into the gully, throwing two riders through the windshield onto the desert rocks. I squinted in the bright sun to search for signs of life, but nothing moved. Now I smelled the alcohol on the men standing beside me and realized what had happened. The five drunken *amigos*, celebrating the New Year, went over the cliff in their car. These three standing beside me, limp and loose from intoxication, had walked away from the crash.

I scrambled along the ridge to a spot I could climb down and ran to the motionless figures lying on the ground. The first, a handsome, well-dressed Mexican youth of about twenty, had no obvious external injuries but was bleeding from the nose and ears. I detected a weak pulse, screamed "He's alive!" and sprinted to the next victim, who lay covered in blood, with bits of lung from a massive chest wound spotting his white shirt. I tried to find a pulse, but my hands trembled, and his hand hung limp.

Their three companions had slowly staggered down the slope behind me, and when they reached the wreck, I slapped them across the face to sober them up. Then I ordered them to help me carry the first young victim to a place we could scale the slope and reach the van. I held the boy's head level, while they followed behind, dropping an arm or a leg every few steps as they stumbled, then catching up again. Our ascent took twenty minutes. Finally we laid the unconscious victim on the bed in my camper.

Returning down the slope with these three drunk and exhausted helpers, I figured, would take at least another half hour – thirty minutes that could mean life or death for the young man in the camper bed. I had to make a snap decision and decided to rush this first victim to a doctor. Leaving the other man to a certain death, we started up the

highway. As we sped along at sixty miles an hour, the VW's top speed with that load, the English-speaking fellow thanked me for stopping.

"*Gracias,*" he said. "No other car would stop. Mostly *turistas* on this road."

He hesitated, and then pointed to the bleeding youth in the back.

"He is my brother. *I* was driving the car. It's *my* car. This very serious crime here in Mexico, *Señor*, you must understand that. My friends will say the dead man was driving, that I was not even here. Only four people in the car. I will show you the hospital, but then disappear. If you tell police I was here, they will know I was driving, *comprende? Por favor, Señor!*"

I told the two drunks in back to help keep the boy on the bed breathing, but they lit cigarettes and stared back at me through bloodshot eyes. I couldn't both drive and give artificial respiration, and none of them were sober enough to drive. When we reached Tijuana, the streets were jammed with the holiday turmoil of New Year's Day celebrations, horns blaring, bells ringing, people shouting and waving flags. Shreds of red firecracker casings littered the sidewalks in front of giant tequila bottles on billboards piercing the blue sky. If I honked, or screamed and waved my arms, I would fit right in with the rest of the partying. Nothing I could do would draw attention to our emergency, so we crept along slowly in bumper-to-bumper traffic. Finally my English-speaking guide pointed to the next intersection, told me to turn right, and again begged me to lie to the police.

"*Por favor, Señor.* For my life! Four. *Cuatro.* Please!" He pointed halfway down the crowded block to a plain brick building with a large red cross in a white rectangle, then pushed open the sliding cargo door and disappeared into the holiday throng.

I pulled up in the clinic's entranceway and ran inside shouting "*Emergencia!*" The man on duty walked slowly outside and looked in the side window of the van. I pushed him toward the open sliding door. He calmly stepped inside and lifted the boy's wrist. Suddenly the medic's face lit up, and he yelled something in Spanish, apparently shocked to find a pulse. As I watched in horror, with both hands he pushed down hard on the boy's chest, there was a quick convulsion, and blood and a lump of lung appeared in the boy's mouth. *Didn't he know that CPR technique was never to be used on a victim with internal injuries?* The boy was dead now.

Within five minutes the police arrived, and shoved the two drunks and me into the back cage of a paddy wagon. Then it hit me. If the two Mexicans claimed this gringo ran their car off the road, accidentally or not, I was in serious trouble. Under the codified system of Mexican law – like the Japanese law I had warned the R&R troops in Tokyo about – I was automatically guilty until proven innocent, and the crime was homicide.

When we arrived at the jail the police confiscated our belts, so we couldn't use them as weapons or to hang ourselves, and pushed us into separate metal CONEX cargo container cells. I paced back and forth as I waited, just as I had done in the Wellesley jail cell, out of earshot from the others. Thirty minutes later my cell door opened, and a police lieutenant introduced himself with a smile and warm handshake. He spoke perfect English.

"Thank you," he said. "Thank you, *Caballero*, for trying to save that man. No one else would even stop on that road."

He handed me my belt, and led me outside, never asking my version of the accident. I told him that one more victim was still out there beside the wrecked car and gave directions and approximate distances. The lieutenant thanked me again, and escorted me back to the paddy wagon, where his deputy now invited me to sit up front

in the cab. One of the policemen who had manhandled us at the hospital offered me a cigarette.

When we got back to my van, a dusty black funeral parlor hearse was already loading the boy's body. Death was an everyday affair here, and they didn't waste time. I borrowed a bucket of water and sponge from the medic to wash the blood out of my car. As I wiped down the vinyl camper bed, three street kids appeared out of nowhere and swarmed around the van, claiming someone hid drugs in it while I was in jail. That was a distinct possibility, I realized, either to smuggle the drugs across the border or to win the \$80 reward the authorities offered for information. The kids volunteered to help me search the van, but if there weren't any drugs stashed there already, I figured there might be after these street urchins made their pass. I kept them away from the car, made a cursory inspection myself, and then drove to the border, numb with the thought that the end of the day could find me in jail again, this time on drug-smuggling charges. But somehow it all seemed insignificant in comparison with the needless loss of that young man's life.

A long automobile queue waited at the border. The border police singled me out almost immediately and directed me to a special inspection area. *This is it*, I thought wearily. But as soon as the inspector asked his first question, I realized this was just a random search. Well, not exactly random – a longhaired gringo, traveling alone in a beat-up Volkswagen van.

“What was the purpose of your trip to Mexico?” he asked.

“Camping,” I said.

“Alone?”

“Yes.”

He raised his eyebrows, and took a long look at me, and then the van. “What's in the footlocker?” he asked.

“Camping equipment.”

“You know, *Señor*, I believe you,” he smiled. “But I just *have* to look – otherwise it would bother me all night.”

I flipped open the lid for him to see, and he waved me through with wishes for a happy New Year.

I crossed over the border and, my hands still shaking, pulled off at the first exit in Chula Vista. I made a collect call to my brother Russ, still studying microbiology in St. Louis. I had seen dying men in Vietnam, but always with a medical corpsman or field doctor at hand. My own rudimentary knowledge of first aid had never mattered.

“R,” I said shakily, “if I were studying medicine instead of mathematics that guy would still be alive. What is a single life compared to a hundred theorems?”

“Look T, try to relax,” he said calmly. “If he was bleeding from the nose and ears, there's not much anybody could have done. It wasn't your fault that medic was incompetent. Without your help, that boy wouldn't have made it to the clinic in the first place. You're no medical doctor. Check into a motel, buy a fifth of Seagram's, and call me in the morning. In the meantime, I'll talk to the emergency-room doctors here to see what they say.”

When I talked to Russ the next morning he told me the ER staff agreed – the chances of that boy surviving, mentally intact, were slim even with proper treatment. When my hangover faded, I pointed the van back to Berkeley.

Having survived the first academic term, I now set a new goal, to pass one of the PhD Oral Exams by May. Three outcomes were possible: Fail, Pass at Master's Level, and Pass at PhD level. I needed to pass at the PhD level to remain in the program, and I chose to attempt the Probability Oral Exam first.

The Orals, more affectionately known by graduate students as the *Anal*s, were comprehensive exams designed to test aptitude for a dissertation. They were the most terrifying intellectual experiences of a graduate student's life, far worse than the written SATs or GREs. PhD Candidates in mathematics had to pass three exams, including two of Algebra, Analysis, and Geometry, plus one elective. Each exam subjected the student to a horrific hour of humiliation, standing at a blackboard while two or three of the world's experts in that field peeled open the analytical halves of their brains, like onions, layer by layer, to determine the exact depth of knowledge and intuition. You were on trial for your academic life, pleading your own case. Unlike a written exam, Orals allowed total flexibility. The examiners could instantly switch lines of attack as soon as they saw you could answer a question and probe instead for something *simple* you didn't know, which always happened. It felt like pithing, the pricking of a live frog's brain in zoology lab with a needle-tipped probe until you found the spot for the primal screech.

To prepare for the Orals, graduate students formed study groups and role-played mock trials, shared lists of old test questions, and took tranquilizers months in advance. Some even visited the faculty examiners' offices with flimsy excuses, making mental notes of the relevant algebra or geometry texts on his bookshelf, and then rushing to Moe's Bookstore to buy used copies. Then they worked through the books' exercises again and again, first to find correct solutions, then for speed. But in spite of all these measures, there were still nervous breakdowns and vomiting at the blackboard.

The next five months I continued my seven-days-a-week work regimen, this time preparing for my first Oral. Judo, racquetball, and strenuous hiking kept me fit and able to sleep without drugs. My plan was to stop studying two days before the exam, and the day before, to rise before dawn and relax in Tilden Park, sitting in the grass and mending clothes I'd saved for the occasion. After a seven o'clock movie, I would then easily fall asleep without the customary pre-oral dose of Sominex. That way I would be clear-headed and well rested on the morning of the exam.

My plan worked fine, until the movie. I wanted to take in a simple western, and a friend recommended Clint Eastwood's *High Plains Drifter*. I went into the movie relaxed and already nodding off, but after two hours of watching men being bullwhipped and burned to death, I left the theater in jitters. I stopped by Jonathan's house and staggered into his kitchen. He took one look at me, told me I looked like a deer in the headlights, and sent me home with a half pint of brandy in a Mason jar. That knocked me out immediately.

My Probability Oral examiners were Loève, the world probability expert, Haskell Rosenthal, a Banach space theorist recently interested in probability, and a physics professor. University statutes required an outside examiner as a partial check against inbreeding and deterioration of standards.

Rosenthal spoke first. "I'm not a probabilist and have only a few questions, so maybe I'll go first." After the others nodded assent, he continued. "Suppose you have a converging sequence of Lebesgue-Stieltjes integrals..."

All the other Probability Oral exams I had ever heard of had started with a few basics – the definition of *expected value*, or *statistical independence* – to give the candidate a few seconds to say a few words about something easy he definitely knew, and to get used to the sound of his own voice. But Rosenthal’s question did not use standard probability terminology, and it threw me off balance. For twenty minutes I squirmed like a live victim on a meat hook. Slowly I collected my wits, translated his question into more familiar probability terms – *characteristic functions* – and finally answered his question. The hour was already a third over, and I had not really shown anything deep. I glanced out the window for one blink of my eye towards the Berkeley hills, wondering why I was even here. Then Rosenthal finished, and Loève dove in. Luckily for me, he used probability language I was familiar with, and I quickly answered his barrage of questions. His go lasted nearly until the end of the hour, leaving the physicist time for only one question.

“What does *almost surely* mean?” he asked, referring to my repeated use of that very precise mathematical expression, which appears uncharacteristically sloppy to most other scientists. The tension broke slightly, as Loève, Rosenthal, and even I smiled as I explained the definition. It simply means with certainty, with probability one.

I left the room feeling I had probably failed, because of the first twenty minutes. I had an appointment with Loève several hours later to get the results, and when I walked in, Loève congratulated me. I had passed at the PhD level, barely. *One down, two to go*, I thought, and awarded myself a weekend of celebration in San Francisco, smoking dope, making love, feasting on Dungeness crabs at Fisherman’s Market, and listening to rock music. On Monday morning, I started an intensive four-month preparation for the Analysis Oral. While half of Berkeley danced in the streets over Nixon’s resignation, and then rioted over his pardon by Ford, I studied Banach spaces and operator theory.

During the summer quarter, I chose to forgo formal classes in order to concentrate on the remaining two oral exams. To break the monotony and refresh body and soul, I signed up for sailing lessons at the Berkeley Marina with the University Sailing Club. I spent several afternoons a week helping repair fiberglass leaks in the Tiburon sloops, replacing anchor lines, and taking as many lessons as I could schedule. The rigging exercises came easy for me, since sailors use the same figure eight and end-of-the-line bowline knots we had learned in Ranger School mountaineering. The Sailing Club had a reputation for being crack sailors and tough taskmasters. Slowly I advanced from novice to certified sailor and finally to instructor, and put my new students through the same rigorous exercises, man-overboard drills, putting the boat in irons during high winds, and righting a capsized centerboard sailboat. The strenuous exercise and fresh salt air kept me energetic and alert and improved my concentration on mathematics the other eight to ten hours a day.

Three months later I passed the Analysis Oral, also at the PhD level, and with less pain. Then in my final exam, the Algebra Oral, one of the examiners asked what I knew about *groups of order $2p$* . I answered that every group of order $2p$ was either cyclic or dihedral, and he asked me for a proof. That theorem and proof were not in any of the syllabuses but had just struck me as beautiful, so I had taken the time to become familiar with them, and I was able to write down the complete argument on the blackboard. They were so surprised that one of the examiners blurted out to the

other, “How did he know that? Did you teach that?” “No,” the other said, “and he wasn’t in my class anyway.” I passed the final Oral with flying colors.

I stopped by to tell Jonathan and raise several glasses of wine with him.

“Congratulations!” he said. “And you can shake my hand too. My thesis is all but done, and it looks like I’ve landed a tenure-track job in the history department at Wellesley!”

“Congratulations back!” I said. “But did you have to pick the one college in the whole United States that I’m officially forbidden to visit?” I told him about being shot at by the Wellesley police and banned from campus for life. And sure enough, Jonathan went to Wellesley and spent his whole career there, later becoming full professor and department head.

The Bear of the Orals was now finished, and by the end of the second academic year, I had also given the two required seminar talks and passed the two language exams. German had been easy after the year in Göttingen, except for not knowing some of the *English* mathematical terms. The Russian exam was more of a challenge, but with the textbook from my Intensive Russian course at Stanford and the phrasebook I had carried behind the Iron Curtain, the essential grammar slowly came back to me.

After those two years of intense concentration, I needed a solid break away from Berkeley before beginning the Dissertation Ordeal. I decided to hit the road in my Volkswagen van for the three summer months, just enjoying life as a drifter, working odd jobs, exploring the deserts and Great Plains, enjoying sunsets over a campfire. And I wouldn’t even have to sleep under bridges – I always had my beloved home on wheels.

My friend John Oneal had just returned from a nine-month pilgrimage in India, following his guru Sant, and I invited him to join me in the cross-country trek. John had finished as a Star Man in the West Point Class of 1968, and also chose Stanford for his graduate school scholarship in political science. After spending the two academic years 1968-1970 in Palo Alto, he did his stint in Vietnam as the war wound down. Like me, John also left the Army early to return to graduate school, but not by finding a logical loophole as I had done. Just the opposite. He was one of the first West Pointers ever to be released from the Army as a Conscientious Objector, and, unlike other COs, he filed his petition for release only *after* finishing combat duty in Vietnam. Having been raised in an Army family – his father was still a colonel in the artillery – his decision had been doubly difficult, but his application, based on John’s belief in the philosophies of Far Eastern religions, even came with his father’s blessing. Now he was back in the PhD program at Stanford, where his dissertation in Political Science was soon to win a national award.

We loaded the van and mapped out our route, past Yosemite and along the Grand Canyon. Passing through the Texas Panhandle, we looked up Abe Dean, who had survived his open-cockpit flying missions in Vietnam and was now raising quarter horses at Hay Camp Ranch. That, and constructing a country club for oil and cotton-rich Texas farmers, complete with its own airstrip for their private planes. A severe drought was now threatening his golf course, and he desperately needed help. I promised to return after I dropped John off in Lawton, Oklahoma.

“You know Mike Snell was killed in Vietnam when we were there?” Abe said. “In June.”

“No!” I said, flashing up an image in my mind of his laid-back Texan West Point friend with the wavy black hair. “I thought he’d already finished his tour before then.”

“He did,” said Abe. “But somehow he started loving the Army, and volunteered for a second tour. He was killed in a firefight while pulling two of his soldiers to safety. I named one of my two sons after him.”

John and I got back on the road to Lawton, and during those long drives through the desert and long chats over campfires, I came to like and admire him more and more. He was an amazing Man of Contradictions – conservative Okie, conscientious objector, curious scientist, dope-smoking hippie-in-disguise, astute financial investor, and unusually gifted storyteller. That trip was the beginning of a deep lifetime friendship, helping compensate a little bit for the loss of Gary.

I bid farewell to John at his parents’ home in Ft. Sill, Oklahoma, just outside Lawton and returned to Hay Camp to help Abe clear land and haul water. Then I drove East to paint houses with my brother George in St. Louis, and then West again, arriving in Lake Tahoe several weeks before the start of fall quarter classes in Berkeley. I found a wilderness campsite on the lower Truckee River, where I was sure the Forest Service would never check, and drove into South Shore to apply for a job at the California/Nevada Employment Office, which literally straddled the state line. The east side of the huge room had flyers and clerks helping job hunters find work in Nevada, and the west side of the same room handled California. On the California bulletin board I saw an ad looking for a dishwasher in the restaurant of the Elm Lodge Inn and drove over to apply in person.

“Holy shit,” the manager said, looking at my application. “You have more degrees than the *cook*! And he’s a mathematician too.”

In addition to my bachelor’s degree from West Point and the Master of Science from Stanford, I had also automatically picked up a Master of Arts in Mathematics from Berkeley, as a tiny reward for passing the Orals. I was curious about this cook and sought him out during a break from washing dishes. He was a thin, middle-aged, nervous man with a warm smile, comfortable in his rumpled white chef’s uniform.

“Yep,” he said, “I was a mathematician. Went to Paris, to the Sorbonne, to get my master’s. While I was there, I decided to learn to cook in my spare time. I paid a dollar an hour – one helluva lot in those days – just for the privilege of watching. I had to stand in a corner of the kitchen, out of the way, and couldn’t ask any questions, just watch those chefs work. Fell in love with it. Finished my math degree finally, but my heart was in cooking, so I studied to be a chef. Even got a few medals.”

He proudly showed me an old photograph in his wallet, of him in his formal black chef’s uniform, medals on his chest.

“Want a *steak*?” he asked.

My dishwasher’s pay was for minimum wage, plus all I could eat, except steaks, the manager had stressed. The chef knew the rules.

“Sure,” I grinned, and he threw a New York strip on the grill.

The poor man had found his niche here, in a low-key restaurant off the beaten track that was tolerant of his alcoholism. Every now and then he would re-create a Paris delicacy from the old days. The manager would list an English translation on the daily Elm Lodge menu specials and stack the tidbits in the freezer. When a customer ordered one, the old chef winced as the kitchen staff threw it in the microwave.

Two weeks later I returned down Highway 50 again to Berkeley, eager to pick up mathematics once more. Completion of the Orals was only the first step towards a dissertation, and it was actually the next step that most graduate students failed.

But whether I obtained my PhD or not, I vowed, I would never abandon mathematics completely like that Sorbonne chef.

The PhD Oral Exams had reminded me of Plebe Year at West Point. Being grilled by an upperclassman while standing up against a wall in his room, or by world-class mathematicians while up at the blackboard, both were designed to eliminate weak candidates. For those that passed, either Plebe Year or the Orals, internal motivation had to quickly fill the void left after surviving the weeding-out phase. Just as I had been free to choose my lifestyle after my release from the Army, during the remainder of my quest for a PhD, I was now free to choose my own mathematical directions and set my own pace.

My next administrative advisor was Professor Steve Smale, whose solution of a major part of the Poincaré Conjecture had won him a Fields Medal, often said to be the mathematical equivalent of a Nobel Prize, except that it was awarded only once every four years and given only to a person under forty. Like me, Smale had begun his education in a one-room country schoolhouse, but unlike me, Smale was extremely political. During his senior year at the University of Michigan, the administration put him on probation for his radical political activism, and as a faculty member at Berkeley, he helped organize the national Days of Protest against the Vietnam War and held a press conference, critical of U.S. policy in Vietnam, on the steps of Moscow University. I wondered if the same guards had let him warm his hands. Smale was even radical for Berkeley, and together with other activist colleagues, he published a short-lived anti-authoritarian departmental “counter newsletter” whose name they derived from *functor*, the mathematical term for a “morphism between categories.” Title of the newsletter? *Up Against the Blackboard, MotherFunctor!*

I signed up for his course on mathematical economics. Waving his hands in the air, his crop of unruly curls a holdover from his radical days, Smale announced the first day of class that there would be no homework or exams the entire term, a final paper was voluntary, and all students would get an A regardless. As my administrative advisor, he immediately signed every bureaucratic departmental form I brought him, almost without reading it, and the grapevine said Smale believed that the only requirement for a PhD should be a good dissertation – nothing else. That, of course, was my ultimate goal.

In addition to the academic pressures, a critical obstacle to survival as a walk-on mathematics graduate student at Berkeley was money. Unlike West Point, where every student had a full government scholarship that included not only room, board, and tuition, but also a clothing allowance and small salary, the Berkeley math department offered only enough graduate teaching assistantships to support roughly one-quarter of its PhD students. Since the average time to completion of a dissertation was about eight years, for those that made it, many were facing years of study without any financial support.

To make ends meet, graduate students graded papers, relied on spouses’ incomes, lived in subsistence-level student communes, and took part-time jobs. My friend Maurice drove a delivery truck for the *San Francisco Chronicle*, David wrote calculus books, Tom smuggled marijuana from Colombia by cruising up the coast solo in his tiny Tiburon Sloop. The Coast Guard figured no boat that small could make it five miles outside the Golden Gate.

I took jobs most graduate students wouldn’t touch with a ten-foot pole. I worked as a process server for a private eye company in Oakland. As a newcomer, I got stuck

with the worst cases, the files with old addresses and notoriously successful subpoena dodgers. The new California law required only that the server see the target person, not physically *touch* him with the papers, as the law had required in the past. That allowed me to serve papers to delinquents who stood cursing, laughing, and giving me the finger from behind locked glass doors. My long hair and motorcycle also helped catch a few culprits off guard, including a used-car salesman, and for each summons I successfully served, they paid me three dollars and fifty cents.

But many of the addresses were too old, many of the targets, including one particular ambulance driver, were too elusive, and many of the summons addresses were too risky. The detective agency issued me sealed documents, with names and supposed addresses printed on the cover, and I had no idea of the legal contents. I once served papers to an eighteen-year-old street tough playing basketball with his friends by rolling them up and pushing them through a cyclone fence. It was too easy. The target was expecting a pro football draft letter and happily ran to the fence to get the envelope. When the papers he opened turned out to be a lawsuit filed on behalf of a girl he had shot with a shotgun, I fled on my Triumph and quit the process server business the next day.

I also applied for teaching jobs other PhD students wouldn't even consider. San Quentin Prison advertised for a college-level math instructor to teach inmates, and selected me – from a pool of millions of applicants, I'm sure – to replace an instructor who was taking early retirement. Just as I was about to start teaching, the previous instructor reenlisted for three more years, and my job was placed on indefinite hold. But it wasn't a complete loss, since San Quentin had already gotten me a California Community College Lifetime Teaching Certificate – registration number 33355 – much to the envy of fellow graduate students who had been trying to get one for years. It was like the bureaucratic Catch-22 for U.S. Immigration Green Card Status. You needed a job offer to get the Certificate, and needed the Certificate to get a job. "How can you possibly be jealous of that?" I joked to my friends. "Getting *Life* at San Quentin."

I also managed to land another job shunned by most other graduate students, who felt it beneath them to teach anything below college level. I applied for, and won, a university position as Community Teaching Fellow, where I traveled four days a week to a public elementary school in a nearby Richmond ghetto, for a reversal of *To Sir With Love*. I was the only Caucasian under that roof – including teachers, students, and administrators – and my job was to use abstract mathematics to help poor kids, mostly fifth and sixth graders, who were growing up in a gang-ridden war zone and desperately needed a boost in their self-esteem.

Many of these inner-city children had failed repeatedly and were convinced that they would continue to fail. A significant number did exactly that, on through high school, if they made it that far. Many were unresponsive to normal teaching methods, and remedial arithmetic programs conducted by the public schools didn't work, since those systems used standard learning material and standard tests. No matter how hard they tried, these ghetto kids were continually playing catch-up with middle-class WASP, Asian, and Jewish kids whose parents drilled them on their multiplication tables at the dinner table and helped with their homework. It wasn't that the ghetto kids weren't bright. It was that they lacked self-confidence, and to restore that was more important than teaching them specifics.

The CTF program used a “discovery” method, asking students questions, posing mathematical games and riddles, and leading them to discover mathematics on their own. We avoided standard grade school mathematics topics and instead exposed them to the Game of Nim, the Towers of Hanoi, Cake-cutting Problems, the Prisoner’s Paradox, and other elementary examples of abstract mathematics that their usual classroom teachers couldn’t solve. I asked the questions, and posed the problems, and let *them* come up with the ideas. If it wasn’t a fun problem, then that was *my* fault. They would try one solution idea after another, and get insights one by one, and on the way, discover for themselves how creative and analytical they really were. I worked with the whole class, never with specially selected students, for only 40 minutes each day. It was a tremendous opportunity to begin to repay society for its gifts to me.

I decided on an informal approach, and the first day introduced myself as “Ted.” The students couldn’t understand my midwestern accent – *Tudd? Taad?* – until I wrote it on the blackboard. From then on they called me *Mr. Tay-ed*. At least it was better than it would have been had they known my correct surname, *Mr. Heel*. But my kids liked the disguised math problems I gave them so much that I could use the threat of not letting them come to my class the following week if they misbehaved.

There in inner-city Richmond, violence was an everyday occurrence, even at school. Other teachers came into my classroom and frisked students up against the wall. Twelve-year-olds threatened to blow my head off with a shotgun, while others begged me to demonstrate judo throws after class. I once made the mistake of calling the parents of one hyperactive youngster to ask them to speak to him about his classroom shenanigans. The poor boy came to school the next day with multiple bruises, and sat painfully and quietly through the hour. It took weeks before his spirit returned to normal, and after that lesson, I handled all disciplinary problems myself.

When the 1974 teachers’ strike broke out in Berkeley public schools and turned bloody, the city made desperate appeals for substitute teachers. Many math graduate students were knee-jerk union supporters, regardless of the issues, but I talked to the striking teachers. Their main beef was salary, and they complained that the average Berkeley high school teacher’s pay for the nine-month school year was only \$16,000. But that was \$5000 more than I had earned as full-time university lecturer in St. Louis, and was six or seven times the minimum wage. I decided to substitute-teach just so the students wouldn’t have another math-phobic babysitter for a month, and the strikers and some of my math friends were furious.

“Motherfucking scab!” yelled one of the striking teachers, giving me the finger when I was signing up to teach.

“Look,” I said to the heckler. “Those kids are missing an education, just because you want more money. I worked my butt off in a Richmond primary school to help prepare some of these same kids for high school, and I’ll be damned if I’m going to let you kill their chances. If they don’t finish high school, I might end up teaching them in San Quentin. I love mathematics, and I’m going to help them enjoy it too. And unlike you, my friend, I’m doing it without pay.” I pointed to the line on my work application where it stated all my earnings were to be donated back to the school. Quiet.

The school district administrators assigned me to Martin Luther King School, and I phoned the principal to get directions. He warned me not to park on the street, or my tires would be slashed. When I arrived on my motorcycle to park in a guarded lot, two strikers shoved me back and forth, nearly knocking over the Triumph. Luckily for all of us, the strike soon ended.

During those first two years at Berkeley preparing for the Orals I had lived in the little basement apartment on Cedar Street, but even that was not cheap, and cost me most of my income from the GI Bill. I thought back to my fifteen-dollar-a-month mansion in St. Louis. If I could find inexpensive living quarters here in Berkeley, it would significantly extend the educational buying power of my diminishing savings account.

Every day, as I cut through the wealthy neighborhood north of campus on my shortcut from Cedar Street downhill to the math department, I passed a large vacant house, partially hidden by shrubbery and large trees, near the intersection of Leroy and Ridge. What caught my eye were two large official signs, posted on the front door and porch, warning *Misdemeanor to Occupy*. The rambling three-story house looked solid, so I figured the signs would soon disappear and I would see some sort of activity. When that didn't happen after several months, I crept up to the front window, peered in, and was shocked. There I saw solid redwood paneling, beam ceilings, hardwood floors, and built-in, recessed, hand-carved redwood bookcases and fireplace benches. The natural beauty and elegance of the interior was overwhelming. Real estate agents later told me it was original classic Mission Revival architecture.

Although the house was physically beautiful and sound, it reeked with a foul odor, and neighbors told me they had made numerous health-hazard complaints to the Berkeley Housing Department. They said that both the Neighborhood Association and City Hall were pressuring the owner to sell, rent, or at least clean it up. Such a gorgeous house, in that beautiful neighborhood just one block north of campus, and vacant for so long. It didn't make sense.

When I had a free afternoon, I bicycled over to City Hall to research the property and tax records for 1776 Leroy Street. The owner, I learned, was one Mortgage Loan Servicing Corporation, whose office was an hour away in Palo Alto. I phoned them to make an appointment to talk about the property, borrowed a sport coat and shoes, packed a briefcase with several heavy algebra books, and drove to Palo Alto, where I parked my battered VW van a block away, out of sight from their office.

"That's a beautiful home," said the vice president, as he pointed proudly to an old photo of the house in his real estate scrapbook.

"I guess you haven't seen it in a long time," I said. "It doesn't look like that any more. Why hasn't it been restored, or sold?"

"To tell you the truth," he said, "we don't own it. We just manage it for a group of seventeen independent investors, scattered all over the Bay Area. It's next to impossible to get them to agree on anything. The house next door on the corner is also part of the estate."

"The one with the fire damage?" I asked. I pictured the other house, twice as large as the one I was interested in, with blackened holes in the roof.

"Yeah," he said. "Those two houses have been a pain in the neck for us. Lawsuits and insurance claims, neighborhood complaints, you name it. The price tag for both together is \$100,000. We just want to get rid of them."

"A hundred thousand is about what my partner and I had in mind," I bluffed. "Tell you what. I want to check out the foundation and sanitation problems and get a feel for the neighborhood. Give me permission to enter and occupy rent-free until I make a decision. In the meantime I'll start an initial clean up. The Neighborhood Association will be glad to see that."

"Fine," he said. "I'll have my secretary type up the papers."

“And since I plan to do some minor repairs,” I said, “of course I’d like a Right of First Refusal.”

If a serious buyer came along, a Right of First Refusal would grant me the right to match that offer and buy the property myself. Usually such an option costs a tidy sum, but I was gambling that he was delighted someone finally showed interest in the property.

“Of course,” he answered.

Two hours later I returned to Berkeley with a key to the house, written permission to occupy rent-free, and a signed Right of First Refusal. When I opened the front door, the stench buckled my knees. I covered my face with a handkerchief and walked from room to room. Fifteen rooms, just like the Lindell place, but here each was strewn with half-filled bottles of urine and rancid wine, and mildewed, rotting mattresses. Human excrement and wriggling maggots filled the toilets in all five bathrooms, and even the bathtubs were splattered with feces. It reminded me of the *septicemia* patients on Ward 16 at Long Binh Hospital, except this smelled much worse. I opened all the windows on the second floor and left it a few days while I advertised to sublet my apartment on Cedar.

The day I started work on the Leroy house, I skipped breakfast and used a tool I had jerry-rigged from a large crescent wrench and oversized screwdriver to turn on the water to the house at the city water meter on the street. Wearing a surgeon’s mask and rubber gloves, and armed with two galvanized buckets, a water dipper, and a small shovel, I started at the main bathroom on the second floor. Using the dipper, I first transferred the raw sewage from the toilet bowl into the bathtub. Then I cleared the toilet passageway by hand, primed and filled the tank, and soon had that toilet flushing normally. For the next several hours, I used this one toilet to flush the filth from the other toilets and bathtubs, until, one by one, I cleared all five toilets and bathtubs.

Opening all the windows, I pitched out mattresses, ragged sleeping bags, newspapers, rugs, and wine bottles. Everything that I could move, I heaved out the windows on the south side, forming a mound of refuse eight feet high. After spraying industrial-grade disinfectant throughout the house, with double doses in the bathrooms, I arranged to have the debris hauled away and left to let the house air out for a few days. Within a week, I had furnished three rooms with Goodwill furniture and donations from friends and was enjoying the restored charm of a Mission Revival architectural masterpiece. It was a mathematician’s paradise, the look and feel of a German hunting lodge with two working fireplaces, redwood benches, and hardwood floors. A spectacular place to just sit and think, and only a short ten-minute walk from one of the best mathematics libraries in the world. I was in heaven.

Neighbors stopped when they were walking by, to tell me how much better it smelled, and to thank me for ending the eyesore. The mailman told me he had avoided the house for a whole year because of the vicious Dobermans that had been chained to the porch, and more recently, because of the odor. I even had a visit from the Berkeley Police.

“The Gypsy’s doing time in Folsom Prison,” the officer said, “and soon as he gets out, this is the first place he’ll come.”

I asked the neighbor across the street about this Gypsy fellow.

“Oh, *that* one was an operator,” she said, shaking her head disapprovingly. “Two years ago he saw the house was vacant, broke in through a window, and re-keyed the door locks. Then he just set up shop, rented out rooms to transients for \$45 a head,

and carried on a major drug trade. Sometimes he had more than two dozen derelicts and drug addicts living there. Finally the cops arrested him, and took him away. But the only way they could get rid of the rest of the squatters was to have the City shut the water off. Those vagrants lasted over two weeks, without plumbing, can you imagine that?"

Unfortunately, I could. I decided to take my chances with the Gypsy, and sure enough, several months later, he appeared at my front door. Fresh out of jail, he looked pale and thin, with sunken eyes, and close-cropped dark hair. He was much smaller and more docile than I had pictured, and his Free Box clothes hung in folds. After I showed him there was none of his "furniture" left in the house – my guess is he was looking for some of his stashes – he left quietly and never returned.

He didn't return, but others did. One Saturday night there were three separate and unrelated break-ins at 1776 Leroy. As soon as I would fall asleep, it seemed, I'd be frightened awake by another suspicious creak upstairs and have to go up and run off another intruder or two. Finally I fell into a sound sleep, until I was startled by another squeak of a door. This time I was both scared *and* angry, so I picked up a fish gaff I had found beachcombing on Point Reyes. The short club, with a five-inch metal spike attached perpendicular to its tip, looked like a meat hook on a baseball bat and was made for impaling large game fish. Fishermen used it to haul the struggling victim on board, and this one had old bloodstains and smears of dried fish entrails.

I switched on the light in the front hall, coughed, and noisily opened and closed the front door, as if I'd gone out. Then I hid in the shadows in the front hall and waited. After a few minutes of quiet, the prowler began moving around on the second floor, walking from room to room as if he owned the place. I crept up the stairs and waited silently in one of the darkened rooms. As the man walked down the hall past my doorway, I sprang out, grabbed his collar from behind and shoved the bloodstained spike of the gaff around in front of his face.

"All right, motherfucker," I said. "Spread-eagle on the floor, *now*, or I jam this in your brain."

He nearly fainted, and dropped face down on the floor, trembling from head to foot.

"Don't hit me man," he pleaded. "I'm scared!"

"I'm scared too, you sonofabitch," I said. "This is my house. What the hell are you doing here?"

"Don't stick me with that, man," he said. His eyes fixed on the wicked spike on the gaff.

I let him up.

"Why didn't you just come to the front door?" I asked. "If you need a place to crash, or food, just say so. Why break in and scare the bejesus out of both of us?"

He apologized, and I asked him why he had picked *my* house. I told him it was the third break-in that night.

"The word is out on Telegraph Ave, man," he said. "You need a place to stay, or drugs, just go to 1776 Leroy. Easy to remember. Just go up the fire escape, and in the back window." He pointed to an open window in a dark bedroom.

I calmed him down and led him out the front door. He wanted drugs, not a place to sleep. The next morning I dismantled the fire escape, which put an end to most of the break-ins. Most, but not all. Two months later, faint sounds of a radio came from a secluded back room below the floor where I lived. That particular basement room had

its own outside entrance, with no access to the main house. I knocked on the door, it opened slowly, and a hippie couple appeared. Behind them I could see sleeping bags stretched out on the floor, and a radio and electric fry pan plugged into the wall outlet.

“I live upstairs” I said. “How long have you been here?”

“Two weeks,” said the youth. “But we’re heading for Santa Cruz tomorrow. Please don’t call the fuzz on us, OK?”

I assured him I wouldn’t, and the squatters were soon gone. Most of my time in the Leroy house, however, was a mathematician’s dream come true. I read and studied mathematics in front of a blazing fire in the recessed stone-lined redwood fireplace, and for breaks, walked over to the math library or down to La Val’s on Euclid for a pizza. I was still recovering from my self-imposed seclusion of the Orals years and had become friends with Jack Miller, the fellow who had sublet my apartment on Cedar. A crack IT trouble-shooting expert, Jack had studied undergraduate physics at Ann Arbor and was taking a break for a few years before starting back on his PhD. He and I had hit it off immediately, discovering our common love of hiking, backpacking, and racquetball, and soon became good friends. To help kick start my release that fall from the seclusion of my pre-thesis years, I invited a girlfriend from my Göttingen judo team and Jack, who was still new to town, to join me for Thanksgiving in the Mission Revival mansion. No telling how long I could hang on to that place, and I was going to enjoy it while I could.

Sure enough, several months later a real estate developer discovered the property, started escrow proceedings, and tried to get me evicted. I consulted a lawyer in the university legal aid office, and she told me she had heard about this buyer’s Gestapo tactics – buying old houses, intimidating the tenants into leaving, then restoring the house and quadrupling the rent. After weeks of harassment and interruptions to my thesis research, the lawyer said it was now time to play my trump card – the Right of First Refusal. A company in Oakland was conducting the title search, and I phoned them to ask its status.

“One of the most complicated searches we’ve ever done,” they said. “The fire, the lawsuits, the seventeen different owners. That file must be two inches thick. Finally should be done in about two more weeks, though.”

I waited a week and then drove to their office to hand deliver a certified copy of my Right of First Refusal. They stared at it in shock. When I got back to Berkeley, my phone was ringing.

“Why didn’t you tell us about that?” asked the developer’s lawyer angrily. “We’ll give you a hundred dollars to sign a quit-claim deed.” I guess he knew just how destitute math graduate students really were. I told him I was actually thinking about buying the place, since it looked like a good investment to me.

Good investment? No, it was more like a spectacular investment. Both huge houses, on that prime location one block from campus, for a hundred thousand total? But my own top priority was finishing my thesis, not real estate. I called my friend Jim Eberhardt in Santa Cruz, who drove up the next day, took one look at the properties, and offered me five thousand cash for the Right of First Refusal. Under one condition – that I remain in the house to oversee repairs and work crews.

“No deal,” I told him. “My dissertation is number one. I don’t want to be tied to this house.”

Jim borrowed my phone and called the two real estate companies in Berkeley with the largest ads in the Yellow Pages. He told them we had a Right of First Refusal on the house at 1776 Leroy. The Mason-McDuffie agency had a man there in twenty minutes.

"My God," the man gasped, as soon as he arrived, "this is an original Mission Revival!" He asked to use my phone, and soon two more Cadillacs were circling the block, looking for parking.

"What is a house like this worth?" Jim asked the Mason-McDuffie guy.

"Well, as a house, you could sell it immediately for about ninety thousand," he said. "But this is a Mission Revival, and you just don't put a price on a house like this. You wait until someone comes along who wants one and is willing to pay for it."

Jim and I stepped into the den to talk. The smaller house alone was worth far more than the asking price for both properties. But Jim didn't want to get involved in a project requiring such extensive repairs without an on-site partner, and I wasn't willing to give up mathematics research to remodel houses. I finally settled for free rent for two additional months, moving expenses of \$350, and \$1000 for the quitclaim deed waiving my Right of First Refusal. For me, that was a veritable windfall and gave me time to find my next lodging.

Thinking back to my success finding the Lindell mansion in St. Louis, I placed another *Wanted-to-Rent* ad, this time in the *Berkeley Gazette*, using the same wording from my ad in the *St. Louis Post-Dispatch*. After a few dead ends and crank calls, a woman phoned. Her voice was cracking with age, but strong and clear.

"I have a cottage that needs some repairs," she said. "It's two blocks west of Telegraph, on Blake Street. 2222 Blake Street. Come to the back door. I'm in a *chair*."

When I arrived, Olga was waiting on her back porch, in her wheelchair. She looked even older than I had pictured on the phone, with deep wrinkles, thick glasses, flowered-print dress, and her hair in a white bun.

"I'm ninety-four years old," she said. "I live here alone. Back there is the cottage." With her gnarled hand, she pointed to a tiny brown-shingle cabin behind me, surrounded by five-foot weeds and blackberry brambles. "I haven't been inside in two years. Here's the key. Go take a look."

From the outside, the cottage looked quaint, rustic, ordinary. As I stepped through the door, her words "needs some repairs" sprang back at me. Someone – drug addicts, I later learned – had stripped it completely bare. Not only had they made off with all the interior doors, plumbing, toilet, and the proverbial kitchen sink, they even tore down all the old lath board and plaster interior walls to rip out the electrical wiring and outlets. Except for debris, it was an empty shell, with pine two-by-four supporting studs marking the former location of the kitchen, bathroom, and bedroom, just as the fossilized ribs of a dinosaur skeleton mark the body cavity. A gaping hole in the floor revealed the last location of the commode. The reconstruction would be a challenge, but at least the structure was dry and free of hygiene problems, unlike the Leroy house had been, and didn't need sterilization.

I walked back to the main house, where Olga waited. I told her it would be quite a job and asked her what she had in mind. She shifted the conversation to the University and asked about my education and current study program. Then she slowly came back to my question and told me that if I repaired the cottage, I could live there rent-free for five years. *Five years free rent in Berkeley!* I accepted on the spot.

I returned the next day and began making plans for the renovation, taking notes as Olga described the original rooms and colors. As I walked through the cottage with

a tape measure and clipboard, I saw through the holes that the floor was made of two layers of hardwood, separated by a thick sheet of black felt. I had never heard of such construction, and I asked Olga about it. She told me her father had been a German immigrant, a craftsman, and had built the cottage as his violin-making workshop. He imported his violin wood from the Black Forest and seasoned it there in the cottage. The layer of felt regulated temperature and humidity, she said, when the daily fog rolled in from the Bay.

Using my \$1350 proceeds from the Leroy house settlement, I drove down to San Pablo Avenue and bought second-hand toilet, sinks, and plumbing from Sunrise Salvage. Then I installed new electrical wiring and outlets, drywall, kitchen-counter tiles, a Sears water heater, and, in the front room, a cast-iron potbellied stove. I had never done this kind of renovation before but taught myself as I went, helped by advice from friendly contractors, including a City Planner who knew Olga personally. After twelve days of intense labor, I had another mathematician's paradise.

As a writer's retreat, it was even better than the Leroy house had been, hidden behind the main house, quiet as a cemetery, and surrounded by weeds and wildflowers, with a few hardy cannas, Peruvian lilies, and hydrangeas poking through the mass of vegetation. I threw one last party at 1776 Leroy, sending friends home with all the furniture I could not use at Blake Street, gave the redwood fireplace mantel one last kiss, and moved to Olga's cottage.

Some afternoons we talked for hours. Her full name was Olga Pausch Grace Todd Martz, she told me, and she had married five times. I asked her why only four surnames.

"My fourth husband did terrible things," she said. "They sent him to San Quentin. I haven't spoken his name since."

Her first husband, she told me, was a U.S. Navy Lieutenant who had served as military attaché in the court of the last Emperor of China. "I was married in the bridal gown designed for the Emperor's wedding," she told me. "When the Emperor got engaged, my fiancé stole the plans for the dress, had an exact duplicate made, and switched the gowns just before the royal wedding. It has gold thread on white silk, and special stitching reserved for the imperial family."

She told stories of traveling alone in Europe, as a teenage girl, and said no one ever molested her, that people called her a "spirit child." Over the next few months, I began to understand why. Our Blake Street neighbors were convinced she was psychic and kept their distance, but her stories only kept me entranced. Olga told me tales of her first husband's mission, in 1913, to return the remains of Admiral John Paul Jones from an unmarked grave in France to their current resting site in a crypt in the U.S. Naval Academy Chapel in Annapolis, where Jones is revered as a father of the American Navy. During the transatlantic shipment, a flag was draped over the casket – not the Old Glory with fifty stars we see covering the coffins on the news today, but the appropriate flag for Jones – an original 1776 flag of the thirteen colonies. Navy Regulations required her husband to burn the flag after the reburial ceremony, but he burned only a small swatch, reported that he had burned the flag, and then stored it in his sea chest, convinced it would someday be of historical interest. Olga had donated the flag to the Berkeley American Legion Post in the 1930s, but it had long since disappeared.

She was a remarkable woman and fiercely independent. Olga boiled tea over open gas jets, on an ancient stove without sides that was less sophisticated than the Coleman Camping Stove I carried in the van. Twice a week, the Center for Independent Living's

Meals-on-Wheels program delivered hot food to her door. The rest of the week, she made simple sandwiches from the groceries that the Center delivered to her back door and from the treats I would bring her.

When I first moved in, Olga could use a four-leg walker to slowly maneuver down the three back porch steps to reach her beloved garden. One day, when I returned at dusk from a three-hour motorcycle ride, I found her lying face down in the garden. Olga had fallen from her walker, and, unable to get up or even crawl, she weeded a patch of garden as far as she could reach. Neighbors didn't hear her cries for help, she said, and she didn't know when I would return, so she figured she might just as well weed. If I came home before she died, fine, and if not, well, her Peruvian lilies would be weeded. There in the yard where she had fallen, it looked like a giant cookie-cutter had cut a swath in the shape of the wings of a snow angel.

Olga never ventured outside again. She realized she didn't have much time left and made arrangements to leave the house and cottage to the University. Then she located a distant cousin in Iowa whom she had never met and, piece by piece, had me mail the cousin all her jewelry, gold earrings, pearl necklaces, and silver broaches. As a present, Olga gave me a rectangular gold tiepin, set with tiny emeralds and diamonds, but I told her I couldn't possibly accept it. Instead, I told her, I would put it on my dresser to absorb its beauty for a week before mailing it, and keep only the memories. I built her a special mailbox on her front windowsill, where the postman could put her mail, and she could open it from her wheelchair inside the house.

When I introduced her to the wonders of Oscar Mayer hotdogs, my staple food dating back to my days in the Lindell mansion in St. Louis, she thought it was a miracle. There was a hot meal she could boil on her little stove, and if that was too much trouble, she said, it even tasted good cold. Olga painted verbal pictures of Berkeley's horse-and-buggy days and addressed the birds in her birdfeeder by name, telling me that this one's nest was over on Parker Street, that one on Dwight Way. I never doubted a word she said.

One afternoon a young woman knocked on my cottage door, in tears and shaking hysterically. I recognized her as one of Olga's housekeeping workers from the Center for Independent Living.

"Please tell Olga I can't come back," she said, her voice trembling. "Don't tell her this, but I'm afraid of her powers. Tell her something else. Tell her I moved or something."

I waited for the explanation I knew was coming.

"Yesterday when I came to work," she sobbed, "Olga looked me straight in the eye and said, 'You've been raped.' I *had* been raped, hitchhiking up Highway One from Santa Cruz. But I didn't tell anyone, not *anyone!*" the girl said. "I can't come back. I'm sorry."

Olga had her eccentricities all right, but then I guess so did I, and we got along very well. I felt completely at home in her little cottage, creative and comfortable in that inner-city Walden. It was the solution to my rent problems and the perfect place to continue pursuit of my mathematical dreams. Besides, I figured I could use a little psychic help.