Tales from the Soviet Union

A Diary of Seven Visits

1969 – 1989

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Introduction

Russia and the Soviet Union have loomed often ominously large throughout all my life. Konrad Gross, a grand-uncle and botanist had emigrated to St. Petersburg in the 1890s. In my early childhood we occasionally received letters and photos from him and his Russian family. In 1943 Konrad disappeared without a trace in Stalin's purges. During World War II my image of Russia became colored by fear and propaganda, until, by the end of the war, we were overrun by the Soviet army in our home town in Silesia. My father was rounded up before my eyes. He survived, because the Russians, before shipping him to Siberia, released him with typhoid fever, which they feared. To feed my family I had to work for a Russian car repair shop until we were deported to Western Germany in 1946.

However, these traumatic experiences from the end of the war, I was 14 when we were expelled from Silesia, did not leave any bitterness or paranoia, only a deep curiosity about the Soviet Union. Adventure-lust took me to America, where I finished my PhD and married Barbara, and fate brought it that in my job in the American defense industry—once again the Soviet Union assumed superhuman proportions.

An invitation by the Soviet Academy in 1969 to present a research paper in Moscow opened a singular opportunity for me to explore the USSR. Captivated by what I found and beguiled by the people I met, this first invitation was followed by seven more visits over 20 years, during which the Soviet Union slowly disintegrated. A unique opportunity.

Because my work was associated with the US military, I was highly exposed and never kept a written diary of these visits. Any written material could have been used against my Soviet friends, who trusted me. But the encounters I had were so intense, that they have remained most vividly in my memory.

On the urging of my Western friends I collected these "Tales from the Soviet Union" in the following pages for the first time. Tales, because although they are told in the form of a loose diary, some parts, though "true", have more of a novelistic character—especially the stories from my visits to Georgia. I interspersed them with personal commentaries on historical events, as I saw them then or now after the fall of the Soviet Empire.

Basov's Invitation

1969 - 1972

It all began in May of 1969 with an invitation by Nobel-Laureate Academician N. G. Basov to a Symposium on Chemical Lasers. It was addressed to Ted Jacobs, my group leader at Aerospace Corporation and to me. Considering that we had just begun to work in this new field, it was a great honor.

Unfortunately this honor had several thorny political problems: We were involved in a cold war, and I worked in a classified laboratory supported by the US Air Force. Basov

was a famous scientist, but the symposium would take place in Moscow. It seemed that it would take a superhuman effort to get permission to attend the meeting. In the end Ted relented his seniority, he felt in no mood to travel to the Soviet Union, their elevators did not work, he didn't speak Russian, and his grandfather, who had come from there had sworn a solemn oath never to return.... "Go," said Ted and added with a laugh, "enjoy yourself!"

I dived into the preparations, flew to Washington to persuade our Air Force counterpart, was interviewed by the president of Aerospace Corporation and visited by representatives of several intelligence services. Everyone asked the same question, why was I so eager to go to Russia? "Because," I told them, "somebody has to stay in contact with the Soviets or we will kill each other by accident. Chemical lasers is a new field with military potential, the Soviets are active in it. However, from merely reading their literature one cannot get a clear picture of what they are up to. The symposium is an open door we should take advantage of." This explanation worked.—I didn't mention my personal wish or need to come to terms with my traumata from end of the war, and never voiced my intellectual fascination with Russia, its artistic heritage, its deep religiosity, and contemporary ideology. Few would have understood these personal motives in the environment I worked in.

Sending the acceptance letter through Aerospace—it would have been crazy to send mail to the USSR from my home address—required the signature of three levels of managers. It would always surprise me that the civilian administrators—Aerospace was a civilian organization supported by the Air Force—were much more apprehensive in these matters than our Air Force counterparts, who supported me for years without reservation, because—I would joke—of my German accent..

Let me back-track: In 1968 Ted Jacobs and our division manager, had burdened me with the task of inventing a novel, powerful, continuous chemical laser. How to do that was my problem.

In such a laser, a chemical reaction produces large numbers of vibrationally or electronically excited molecules which are then forced by mirrors (an optical cavity) to emit their energy all at once, in one large burst of coherent radiation. Three such reactions had been explored at Prof. Pimentel's laboratory at Berkeley, one produced excited HF (hydrogen-fluoride) or DF (deuterium-fluoride), an analogous one excited HCl (hydrogen-chloride) molecules. A forth reaction produced exited I (iodine) atoms by photo-dissociation of various iodine compounds.

Because of the very large exothermicity (energy content) of the hydrogen-fluorine reaction our choice fell on this molecule. We had some technical experience elsewhere

at Aerospace in harnessing these gases, because they powered the rocket of the moon-lander. Ted was an excellent gas-kineticist (chemist), I had been trained as a gasdynamicist (aerodynamics and physics) and had a rather vague understanding of chemical kinetics. Neither of us knew anything about lasers, cavities, or the like. However, as it turned we didn't have to search for elusive photons, the reaction produced so many excited states that almost any pair of mirrors was sufficient to make the HF molecules lase. We first duplicated Karl Kompa's pulse laser experiments at Berkeley, how to translate them into a continuous laser was less clear.

As a first approach I came up with the idea of mixing hydrogen and a suitable fluorine compound in a shock tube and forcing the excited HF molecules to lase behind the moving shock. Against all odds—the good kineticists saw so many reasons that this couldn't possibly work, the temperature was too high, there would be too many deactivating collisions, etc., etc... I was fearless but ignorant of the gasdynamic complexity behind a moving shock in an explosive gas mixture—I made it work. My plan was that this experiment would allow us to carefully analyze and model the reaction, before we translated the entire setup into a moving flow in which a shock wave was kept stationary. I soon learned that at higher concentrations the reaction was so powerful that it "blew-out" the shock wave. And the reaction was too fast, the inverted region too small to provide a large enough medium for a powerful laser. What we needed was a gentle, stationary, low-pressure flame-front—in a near-hypersonic flow without disturbing shock waves. An animal nobody had ever seen.

These results plunged us into chaos for a couple of months. The Air Force made special funds available. Ted drafted more co-workers into the project, among them an excellent engineer, who designed a highly unorthodox, hypersonic multi-slit-nozzle which took weeks to manufacture. Meanwhile, George Emanuel, a theoretical gasdynamicist developed a complex computer model of the reaction.

One morning, we had just installed the slit nozzle, an Air Force captain showed up to inspect our progress. It was very early, and I was alone in the lab with my two technicians. We started our laser machine and—nothing happened. The Air Force Captain smiled, shook my hand, and left. Two hours later he called back: "As of this moment all your work is classified." I blurted out, "But why? Nothing happened!" "Haven't you found out yet?" said the captain, "you burnt out all mirrors, when you turned the machine on!" -He was right.

For the next months we spoke in tongues. The experiments chased each other at breathtaking speed. The power output reached a full kilowatt. Visitors from every part of the laser community showed up. Edward Teller appeared with an entourage of high

defense department brass and slapped me on the shoulder: "Continue, this is excellent work. More important than the atomic bomb!" I was crushed, the last thing I wanted to be involved in.

Only our own upper management at Aerospace was unhappy—the Air Force showered us with more discretionary funding than anyone else in the Aerospace Laboratory Division could boast—Ted and I turned unmanageable. The pressures were mounting, and I became a victim of high blood-pressure and unpleasant heart palpitations. By early 1971 I was stressed-out, decided to forego an advancement, and take a leave of absence with my entire family at Karl Kompa's lab in Munich.

Sometime in June 1969 the Air Force had convened a topical conference on gasdynamic lasers in St. Louis. Ted had obliged every person in our group to give a talk on his special contribution to our work—except on the latest experiment with the new nozzle. And then we were notified that a Russian scientist would attend: Anatol Oraevesky from Basov's laboratory. In great haste we were given a precautionary briefing on what *not* to tell Oraevsky—except I got special permission, my application for Basov's symposium was already in the mail.

If I had expected to spot the Russian easily in the crowd, I was wrong. When after my talk Oraevesky approached me, he looked like any other scientist—except he immediately displayed an unexpected humor. He introduced me to an Israeli acquaintance of his, who over lunch tried diligently to lift classified information from both of us. It was amusing, and established a kind of conspiracy between Oraevsky and me.—In twenty-five years of close friendship, Anatol never tried to dig below what I was allowed to talk about.

I took Anatol on a walk through the once upper-class neighborhood near the Arch and our hotel. "These must be millionaires!" he mused sarcastically pointing at one of the dilapidated mansions. I laughed, "They once were the cream of American society, urban renewal has swept up their houses." I did not take him further afield, where in concentric circles the center of St. Louis was for miles boarded up, burnt out, or inhabited by black squatters. A horrifying sight, reminiscent of the burnt out cities in Germany after the War.

Moscow, September 1969

Late at night at the Hotel Rossiya, the red flags on the towers of the brightly illuminated Moscow Kremlin fluttering in the stiff breeze, I had dinner with a colleague from Boston. We had both been invited to Basov's Symposium, and were in the Soviet Union for the first time.

I was tense, all my senses were in a state of alarm. Before I had left a security man had given me a two-hour briefing on how to protect the military secrets I held from the Soviets: Don't volunteer any information, don't let them take any photographs of you, and watch out for young ladies the KGB may plant on you... Even in the presence of this, to me well-known American colleague, I couldn't relax. We hashed over the people at the conference. Academician Basov had been very jovial, asking me to chair a section on the following day. An uncomfortable honor, which, however, my Boston colleague envied.

He ordered a 100-gramm flask of vodka, which arrived in a kind of chemist's glass vial, but I knew it would not relieve my nervousness and drank little. He scoffed at me. Every hour the carillon on *Spasskaya Gate* played a vaguely familiar tune. What a strange place, the carillon of the Kremlin *Gate of Our Lord the Redeemer*, through which the Soviet government drove every day, playing an old Tsarist tune under a Red Star and the Soviet flag where once the cross of Orthodoxy had been...? Later a live dance band appeared and began playing American pop music. Several couples started to dance.

When I returned to my room after midnight I peered expectantly under the bedcovers, but no young lady was hiding there to caress away my secrets....

The atmosphere at the conference was surprisingly congenial. Each of the eight foreigners from the US, from France, and the two Germanies had been assigned a student who translated the Russian presentations. Our own papers were translated *ad hoc* by graduate students, sentence by sentence, sometimes with the impromptu help of one of the senior scientists in the audience. Eventually I found this procedure helpful, it gave me time to formulate my words. Chairing the afternoon section turned out to be somewhat of a bi-lingual bedlam. I violated Russian protocol a few times, but the sympathetic laughter of the audience eventually got me over my apprehension. After my own presentation Basov took me aside and asked some unintrusive, but carefully worded technical questions. He seemed very interested in my work. However, I found it easy to conceal the much more exciting follow-up research, about which I had no permission to talk.

On the third evening the Soviet Academy invited the participants to a banquet at the plush 19th-century restaurant *Praga*. The foreign guests were placed together under the benevolent eyes of Academician Basov. I came to sit between Edgar from East Berlin and Karl Kompa from Munich. On the tables plates of cold hors d'oeuvres competed for space with batteries of bottles of champagne and vodka. Singing erupted led by Basov's tenor. Elaborate toasts were offered to international friendship and

peaceful relations between East and West. I only nipped on my vodka and stealthily poured the rest under the table. When I tried to refill the glass with water, a balding Russian across the table winked at me and topped my glass off with more vodka.

Basov demanded that the four Germans sing a German song. Self-conscious, we had our own East-West differences, Karl suggested *Gaudeamus igitur*, a rusty fraternity song. He sang the stanzas, and we other three the refrain. The Russians looked on with disappointment. They didn't understand the Latin and had expected a marching song.

The balding scientist bent across the table and said to me, "It isn't easy for us to watch four Germans sing together especially when two of them come from East Germany." I told him that I, despite my American passport, didn't like it either. He continued in a confidential tone. "I am Jewish and don't have to point out why this influences my judgment in more personal ways than that of my colleagues. I lost my entire family during the war." I bowed to him and told him that I felt sorry. He described how he had survived by running away from home and ending up in Central Asia. After this conversation I made up my mind while I was in Russia to never hide my German origin, he called it "nationality".

The noise level had been rising steadily, the seating arrangement fell apart. An Armenian and Edgar, who spoke fluent Russian, got involved in a heated argument over the relative merits of Georgian and Armenian cognac. It ended with the Armenian buying a bottle of four-star Armenian brandy to prove the point. Edgar winked at me, now we were going to get drunk on the best...! Somewhere a group had formed around a man they called Friedrich. Curious because of the German name, I joined them and learned that Friedrich, a charming man, was genuine Russian, no German grandfather. Meanwhile Karl had drunk too much of the fabulous Armenian cognac. He excused himself, and when he did not return for a considerable time, I discovered him vomiting over the toilet....

Later in the evening, when most people had already left, Genya, a younger physicist approached me. His gray-blue, Russian eyes, softened by alcohol, looked tipsily at me. "I spent two years at Cornell University, an unforgettable time. During the second year my wife died of cancer," he choked down an attack of tears. His government had not permitted him to return for her funeral. "My mother took care of our children. When I got back my life was suddenly empty.... Can I do you a favor? I experienced so much kindness in America, I would like to return some to you."

I quieted my alarm bells and asked whether on Friday, my last full day in Moscow, Genya could take me to Zagorsk, one of the most famous monasteries of Orthodoxy

and the cradle of Rus, which I had long wanted to see. For a minute Genya became flustered, but then promised to drive me there. He had only to retrieve his driver's license from the authorities. Thinking that he had lost it after some drinking bout, I regretted my request and tried to dissuade him, but Genya shook his head, he was going to take me there, no matter what difficulties he might have to overcome.

On this first visit I did not venture far from my hotel, but one sunny morning I got up at six and walked around and into the Kremlin with my camera. The expanse of its squares and the splendor and beauty of its cathedrals overwhelmed me - as did again the juxtaposition of these religious buildings with the offices of the Soviet leadership in the very same place. Groups of Russian tourists wandered in and out of the churches. By seven the queue of people waiting to be admitted to Lenin's mausoleum wound three times across Red Square, thousands of ordinary Russians, many of them peasants from the villages. Were religion and Communism connected in the Russian mind?

A little late on Friday morning Genya appeared in a second-hand Volga station-wagon. We drove off across Saint Basil's square into one of the radial side streets. Half-way down the street Genya exclaimed alarmed, "this is a one-way street in the other direction!" Neither of us had noticed. Pearls of sweat on his forehead, Genya explained that he had only a provisional driver's license and could not be caught by the police. Unnoticed, we made it to the nearest intersection, and from then on I helped watch where we were going.

Near the Outer-Ring-Road Genya noticed that the car was low on gas. He pulled into a gas station. Long lines of trucks and cars waited at the pumps. The attendants, all women from the surrounding villages, were changing their shift. Genya went to talk to the cashier, and I followed him with my camera. The country women in their kerchiefs and multiple petty coats were a great sight. Two dragged a 12-foot-long pole across the yard to measure the remaining gas in the underground tank. When I took a picture, the two women came storming at me with the pole. Shouting in Russian they forced me to the cubicle of their supervisor, who called the police on a crank-telephone. When Genya became aware of the fracas he nearly went out of his mind. He began to argue with the women. Shortly the supervisor returned to us with an embarrassed laugh—the police had told her that photographing gas stations by foreigners was not forbidden—Genya heaved a sigh. "But," said the woman, "your friend should not photograph us, we don't look our best in working clothes...." I soon learned that, pretty or not, photographing Russian women was a definite no-no.

It began to rain. The road was crowded with belching trucks, which Genya somehow

could not overtake. "Because I am a new driver," he explained, "the office of vehicle control has installed a governor on the car's engine. It will not go faster than 50 kilometers an hour." I finally understood why he had only a temporary license.

It took almost two hours in the drizzle to reach Zagorsk. The village turned out to be a dreadful, semi-industrial jumble of rundown prefabricated three-story residential blocks towering over a few dilapidated wooden houses. The streets were a morass of potholes. People balanced on wooden planks along the sidewalks. Large red banners hung strung across the streets carrying patriotic messages in big, white letters.

Out of this drab cityscape the Troitsky-Sergievevskaya Lavra rose like an otherworldly vision: Spires topped with gilded Orthodox double-crosses, in the center of four smaller cupolas, the deep-blue onion-dome of the Mother Church strewn with golden stars, in the back a gaily painted green and white 18th-century bell tower. A bastion of defense towers and mighty walls surrounded this heavenly fortress. A model for a Russian lacquer box.

We entered the dark cave of the Mother Church. Genya became shy and silent. A choir sang in the background—the deep male bass voices! Three ornately clothed priests officiated before the gilded iconostasis, reflecting the light of uncounted candles. Moved, all ears and eyes, I stood with my hands folded at my back. Next to me kneeled an old woman murmuring prayers. She repeatedly bent down to kiss the flag stones. Kneeling or standing in the dark shadows I made out other villagers. Suddenly a young monk tapped me on the back, he pointed at my hands, and reproached me in Russian. Genya wispered, that the monk wanted me to hold my hands up front. I suppressed my annoyance and conformed. Like the waves of an ocean the Friday vespers rose and ebbed, going on and on. After a while Genya asked very softly, whether we could leave. He felt uncomfortable in this place. Outside Genya shook himself, he had never been in a Russian church....

We had lunch at a small restaurant, a large bowl of hearty soup and dark bread. The friendly girl who served us asked whether we would like a flask of vodka. I barely persuaded Genya that I didn't want to drink.

As we got on our way back to Moscow the rain stopped. A crack in the heavy, dark clouds opened to show a brilliant blue and yellow western horizon. Genya began to talk of his life, of the small dacha he owned, and of summer vacations at the Volga, fishing, swimming, gathering mushrooms, and harvesting wild berries, the simple life. He spoke of the boat he had built himself, for which he had bought the station-wagon. Now he was dreaming of a small outboard engine. And with a breaking voice, he came

back to the death of his wife. He had to care for their two sons without her help, make all the crucial decisions himself. His mother was dear but an old woman. His oldest son would soon finish high-school, but was lazy and unmotivated. His poor grades would not allow him to enter university. What to do with him? How did I manage to motivate my children?

On parting in front of my hotel Genya hugged and kissed me. He would remain one of my most faithful friends.

A bored soldier in the high boots and the drab-brown uniform of the Soviet Militia, an automatic slung over his shoulder, stepped through the weary crowd of people spread out in the circular departure lounge at Sheremetyevo, the international airport of Moscow. Nervous, I stood hanging on to a window sill, all seats were taken. My plane was supposed to leave for Copenhagen in an hour.

At the sight of the Red Army man all the nightmares of another time, of another era drifted up and mixed with the ambiguous emotions left by this visit.

I felt for the watch I had bought, hidden in my pocket. A customs inspector with an inscrutable face had thoroughly searched my luggage but not me. I had an official purchase document for the watch, and a tiny lead seal on a string was attached to the precious piece, but it was silver and an antique, which I was not supposed to take out of the country.

Please, I prayed, let this torture end.

I could not afford being caught smuggling a silver watch out of the Soviet Union. It could cost me my job. We lived in a cold war.

I only relaxed when we were airborne and a smiling SAS stewardess handed me a breakfast. My watch and I were finally safe.

Throughout the flight I pondered my old fears. I needed to chase the dragons from the dungeons of my unconscious. I could not continue to freeze at the mere sight of a Soviet soldier. I had to return to the Soviet Union and explore these deep seated traumata.

For the next couple of months my dreams were pursued by the images of this visit, by my paranoia, the uncomfortable hour at the airport, the singing and the devout prostrations of the faithful at Zagorsk—and by Genya's kind face.

Moscow, December 1972

In the summer of 1971, burned out by the pressures of our successful work, I accepted an offer by Karl Kompa to spend a year in Munich as a visiting research scientist. Barbara and the children had come along, and we had enjoyed a wonderful time together in Bavaria. Shortly before Christmas of 1972 Barbara and the children had gone home, and I made arrangements to visit Moscow a second time. Basov had issued an invitation with the promise to introduce me to his associates, show me their work, and make connections to other laboratories for me. Aerospace agreed and Karl had given me express permission to discuss his work.

A few days before my departure a man called. He said he was from the American consulate with orders to give me a security briefing, could I meet him incognito at an S-Bahn station near Munich.

It was already dark when I arrived at the train station. I wandered around the dimly lit parking lot. After a while a short, hat-less character wrapped in a heavy, dark coat approached me from the shadows, addressing me by my first name in English. We shook hands, and he proposed to have supper at a simple Bavarian restaurant on the way into town. His South-Boston accent gave him away. Like many secret service agents he was Irish and Catholic, a suitable choice for Bavaria.

At first the intelligence services had sent men to debrief me. I had treated them with complete openness, a little sarcastic at times, but never in awe or condescension. They were not used to this, my candidness completely threw them off. I could never tell who had had the smart idea to replace these stogy Irishmen with an intelligent, sensitive, and charming woman—and throughout the 20 years of my East-West travels my intelligence contacts remained women. My colleagues were snickering. One day, after a lengthy session behind closed doors with one of these ladies, I found a modified California bumper sticker pasted to my door: "Have you kissed your FBI agent this morning?"....

This secret service man spoke a smattering of German. He ordered supper and while we ate he inquired after my work. Had I noticed any unusual activities in Karl's lab. He was well informed that a few years earlier anti-American students had vandalized Karl's lab at the university, because he had accepted a research grant from AFOSR. Later when Karl began receiving physical threats, he had been put under the protection of the German Kriminal Polizei. But this had been several years ago, the radicals of the Bader-Meinhof group had been put into jail.

"Well, let's be brief," said my man. "You have been to the Soviet Union before and know

what to expect. Just don't let your guard down and report any suspicious contacts to us.—Do you need any extra money to buy some gifts?" That was a new twist. I coolly thanked him, no, I didn't need anything. I had already bought some small trinkets for my personal friends, more would be an embarrassment to them. We parted near the station, he waited until my train had left before choosing his own direction.

Moscow in the winter! I had imagined lots of snow, instead it rained and the roads were covered with dirty sludge. At Sheremetyevo Anatol Oraevsky and Genya waited for me with their cars. I wore a gray, bushy Alaskan-fox hat complementing my gray beard. It was really impractical in this weather, but Anatol got a great kick out of this wild headdress—a crazy man from Siberia! — He eased me through customs, and then jovially conceded my request to be driven to my hotel by Genya.

Genya was in an elated mood. He at once told me that he had found a very unusual woman, and that they had got married a year ago. "You will meet Zoya, and I am sure you'll like her. She is a little like you, very fast in making decisions and as taut as a violin string." I smiled to myself, so that was how good Genya saw me....

I met Zoya a few days later at their co-op-apartment—Genya actually owned the place —a charming, slender, small-boned woman with dark-brown hair and large lively eyes —and yes, she *was* high-strung! We joined her in the kitchen while she prepared a simple supper. She asked questions about my children, California, our house. She turned out to be a high-energy physicist who spent her summers doing research at a laboratory in the Pamirs. I asked excitedly, couldn't she take me there? Smiling she shook her head and described the desolate mountain area around the station. After supper Genya got his guitar out and sang moody songs "of the young generation," which drove shivers up my spine...

They accompanied me to the bus stop. On the way I asked after Genya's problematic oldest son Igor. Genya hung his head, the boy had taken a job as a street-sweeper for the city of Moscow, because this unattractive position came with a good salary and a scarce apartment, in which he was now living with his girlfriend.... Genya feared that the young man would never get anywhere, how could he help him? I tried to console him, at least Igor was not afraid to work as long as he derived personal gain from his labors.

Next morning Genya introduced me to the aging director of his laboratory where he worked on his second doctoral thesis. On every laboratory visit I had to absolve a formal protocol, before I was shown the research. This time it became a boring exchange of hackneyed phrases with the professor, who should have long been retired. As it so often happened in this socialist country the man eventually retired

without vacating his position until his death eight years later. Genya's thesis research turned out to be much anxious groping trying to duplicate American experiments with totally inadequate equipment and understanding. I spent two hours trying to sketch remedies and possible research directions for him without violating my own restrictions. A delicate job, for which Genya was grateful

My visit to Basov's lab became an exciting exercise in the exchange of scientific ideas and information. Basov had assembled his staff in his private conference room. He had asked me to give a talk about Kompa's and my work in Munich. Thank God, for once I was not restricted in what I could say. Basov's people became very agitated. They had for several years tried to build a high-power iodine laser and, as Basov conceded, had failed. One of Karl's doctoral candidates had, with very little funding but great ingenuity, discovered a completely new approach to this laser. Basov told me, that he had abandoned his work.—which had originally been, as became clear only after the demise of the USSR, directed towards weapons applications—"I shall now restart it again" Basov said, "and build a laser for fusion applications." Friedrich, whom I had first met at the banquet in 1972, built during the next couple of years, a daring, very large iodine laser-fusion system, which in turn encouraged the Germans to upgrade theirs.... And I tried too. My iodine-laser project was eventually wiped out by the all-powerful US (Atomic) Energy Department, because it could have become a competitor to their glass laser system—and Basov's was finally shut down by his military establishment... The only one left today is the conservatively engineered research laser in Munich.—A excellent example of the limitations, fickleness, and shortsightedness of defense supported research, and the secrecy which surrounds it...

Still, the unearned laurels, which I reaped from this talk, opened Moscow to me. Basov adopted me as his protégé and from then on generously supported me. Whenever I felt like visiting the USSR, I had only to let it be known that I would like to visit Moscow, for Basov to issue an invitation, all expenses in the USSR paid for by the Soviet Academy....

On the last day of this short visit it snowed. Christmas would be in a couple of weeks. I had wanted to buy some presents for my children and someone had suggested *Dietsky Mir*—Children's World off infamous Dzherzhinsky Ploshad. I walked there through the snow flurries at night and found a four-level toy store—yawningly empty of any goods. Clusters of gray people surrounded the few counters where something was being sold: skis with the primitive leather bindings of my childhood, one tricycle, soccer balls, a stand with a dozen children's books and uncounted illustrated volumes lionizing Lenin, the "Great Philosopher and Statesman", greeting the workers, or being presented with bunches of flowers by little girls. I was the only one who curiously leafed through these patriotic productions. Resigned I told myself, how could I buy any of these trinkets

when there were so few items available for the children of Moscow?

Depressed by my two-hour search I made to leave—and nearly got myself killed! When I walked out of "Children's World," a gigantic Christmas tree was suddenly swinging over my head. Someone shouted at me in Russian. I ran and behind me the load came down.... I turned and saw the municipal services installing a mega-tree over each door of the place. Each of them adorned with uncounted electric lights, which were, with a deafening bang, rhythmically switched on and off by relays in the shadows....

I walked to my hotel along the back streets of the old town. The falling snow muffled all sound. Tired people, single dark shapes, slouched silently through the light cones of the street lamps, like dead souls carrying heavy shopping bags. They did not pay any attention to the foreigner in their midst.

First Time in Georgia, May 1976

I still cannot satisfactorily explain the origins of my fascination with Georgia. The story I usually tell is that my father, on a trip to Dubrovnik in 1936, had met a man, who had invited him to go hunting with him in the High Caucasus. Historically, these were some of the worst years in the Soviet Union, which makes this explanation as improbable as the other, that my grandmother was Georgian. But a book on the Caucasus in my father's library, I cannot remember its title, definitely did have something to do with the attraction of this forbidden land.

After the political dust of my last visit to the *"Evil Empire"* had settled—which usually took three or four years—I began to fish for a suitable excuse for another excursion. Mother Russia was calling. I applied for a scholarship from the exchange program of the US Academy of Sciences counting on Basov's understanding support.

The American Academy was not impressed by my application. If I had been a student at an impoverished Slavic-language department, they would have helped, but physicists could always find other venues to visit the USSR—besides the American Academy had not been successful in placing physicists in the Soviet Union.

Shortly after this courteous rejection, I received a letter from Basov inviting me to KINO, the annual conference of the Soviet Optical Society—in Tbilisi! Fortuna had once more smiled on me.

For Christmas Barbara had given me a facsimile reprint of the last Baedeker "*Guide to*

Russia" published in 1912. It turned out to be a treasure trove of information. Not only were the items which customs would confiscate from the traveler—*all printed materials and especially religious, political, and pornographic pamphlets*—and the prices of trams and *droshkis* (taxis) still the same, Baedeker had detailed maps of Georgia, vivid descriptions of its 24 odd ethnic minorities, and, to top it off, detailed instructions for several excursions into the High Caucasus: B*ring a gun,* Baedeker advised*, to protect yourself against the wild mountain tribes and a rubber tub, the remote villages don't have bathrooms*...! I would not be able to bring this tome along or, God forbid, maps! —so, I memorized some of its suggestions and set off with a sleeping bag, a huge backpack, and hiking boots.

My get-up created a stir at the conference. I truthfully explained that my gear was equipment for a hike into the mountains. My Russian friends shook their heads, and the Georgian organizers of the conference avoided me, as if I had some infectious disease. When I cornered one sympathetic Georgian scientist, the man shrugged, they couldn't do anything to organize such a trip. I should contact Intourist, the Russian travel services with this idea. The brusque Armenian director of the Intourist office only laughed—if I were an important businessman, maybe an arrangement could be made to drive me into the mountains, but individual hiking was strictly forbidden.

Yet this search brought me the brief friendship of a very unusual man, Academician Rem Victorovich Khokhlov, Rector of Moscow University, who approached me laughing, "I have a full understanding that you want to see the Caucasus, but even I am powerless to sway the apprehensive Georgians. You should make a friend in Tbilisi and come back again. I am sure, given time, something could be arranged for you." I soon learned that Khokhlov was one of the best known mountain climbers of Russia. An unconventional, clear-minded man, and an exceptional physicist adored by his students. Unfortunately, Khokhlov was to die a year later trying to rescue a member of his rope-team on an ascent in the Tien Shan

Scientifically the conference was uninteresting. I was not the only one who had been drawn to this for Russians most "exotic" republic in the SU: its easy life, its wine, and the proverbial Georgian hospitality. I met several old and new acquaintances, alas, no Georgian.

There was Peter, a young Russian physicist from Basov's lab whom I had already met in Moscow. He had applied for a scholarship of the same USSR-US exchange program as I and wanted to know to which lab in the US he should go. He was an honest, and serious person whom I had liked at once. I suggested that he write to a friend of mine, a professor at the University of Southern California in Los Angeles.

I explored Tbilisi on foot. The old part of town, where according to Baedeker its colorful bazaar had been, was dead, the stores closed, the flying vendors gone, victims of the Soviet destruction of all private enterprise. Some of the historical baths, fed by the hot mineral springs which gave the town its name, were still in existence, as were most of the old churches, badly neglected, some half-ruined, and all without clergy. But at Sioni, the church of the Georgian Patriarch, I found, like in Zagorsk, throngs of praying people.

Several hours I spent looking for the house in which Gurdjieff and his tribe of followers had lived before they had fled the Soviet Union in the 1920s. There were many plaques commemorating Russian poets who had lived in Tiflis, but nobody had ever heard of Gurdjieff the Theosophist.

Baedeker's Tbilisi-map also showed a botanical garden, which had been laid out by a German botanist at the end of the 19th century. I was pursued by the hunch that I might find traces of my great-uncle Konrad Gross there who had emigrated from Germany to St. Petersburg at that time. This fantasy was heightened by an old picture of Konrad's elegant wife Alexandra, who looked Georgian to me....

In search of the entrance to the garden I asked a young, pregnant woman for directions. She smiled and in fluent Swabian-German told me of a tunnel which led there. Surprised, I asked her for the origin of her Swabian. She told me that she had been born in Uzbekistan, but that her mother came from Elisabethtal, once a German village in the mountains above Tbilisi. From my Baedeker I knew of this village, I had also heard that its population had been deported by Stalin to Central Asia in 1943, the same year grand-uncle Konrad and Alexandra had vanished without a trace. I mentioned it to her and asked for her name. Her maiden-name was Susanne Eberle, but she didn't want to discuss the fate of the Georgian Germans, it was much too complicated.... Suddenly shy, she excused herself and walked off. I found the tunnel to the botanical garden, but no trace of Konrad and Alexandra.

Many years later a close Georgian friend told me the story of the Georgian Germans. They had been Swabians from Württemberg who had been settled there by Empress Elizabeth in 1817. When the German troops approached the Caucasus in 1943, Stalin had rounded them up—Baedeker counted 60 000 Germans in and around Tbilisi in 1912—and shipped them in cattle cars through the Kara-Kum Desert to Kazakhstan and a few lucky ones to the Tashkent area. Their families were divided up and distributed among Russian collective farms, where they worked like slaves. The last survivors were exchanged by the West-German government in the 1990s against tractors delived to the USSR. A miserable lot.

On a second exploration of town I took Peter along, which gave me an unexpected insight into Russian interethnic phobias. Peter strongly resented Georgians. Making our way through the traffic-choked streets I joked that the Georgian girls were far better dressed than the Muscovite women, black sweaters, tight jeans, silk blouses... and they flirted extravagantly. Peter burst out: "These flamboyant, asocialist Georgians spend all their money on clothes and cars...." This would have been an amusingly cute comment had he not said it with an expression of deep anger. Later he told me that Georgians were arrogant and dangerous, and that he felt very uncomfortable among them.

As I would later learn, most of my Russian acquaintances were afraid of Georgians. Every time I went to Georgia, I would be warned by my Russian friends, that I should be careful in Georgia and expect to be robbed, kidnapped, or murdered! In 1984 one intelligent, young physicist from Moscow, begged me in tears, to refrain from going there.... Yet only on my last visit in 2000 did I ever feel uncomfortable in Tbilisi.

By way of an explanation, one has to remember that Georgia had a long record of uprisings against their Soviet occupiers. In 1924, a deadly armed uprising was mercilessly put down by the Russians. Thousands were shot or sent to Siberia. The Georgian Republic remained in turmoil, until in 1926 Stalin installed the then unknown Lavrenti Beria—like Stalin from Mingrelia—as head of the Georgian Politburo. For eight years Beria terrorized Georgia and systematically liquidated all dissenters including some of Stalin's own relatives. During the Great Purges of 1937 Beria's skills were urgently needed in Moscow, but Georgia remained Beria's special resort and smaller and larger, spontaneous demonstrations continued to erupt in 1942 and 1951-52. After Stalin's death in late 1953 Krushchev had Beria shot. The terror lessened, but Georgia remained the most volatile Soviet Republic. In 1956 a large student demonstration was mercilessly put down, followed by innumerable arrests. In 1973 the population took to the streets demanding that Georgian remain their first language, and another blood-bath was narrowly prevented at the very last moment by Eduard Shevardnadze, then the Chairman of the Georgian Central Committee. In 1976 most of this history was unknown to me. Peter's apprehensions came as a surprise.

Undaunted by my failures in getting help for a mountain excursion, I decided to scare up another American scientist to share a taxi and drive to Kazbegi along the Georgian Military Road, the only pass-road across the range. Kazbegi, a small village, lies at the foot of Mt. Kazbeg, immortalized by Lermontov's poetry. Mt. Kazbeg, an old volcano, is with over 5000 meter, the second highest peak in the Caucasus *and in Europe,* if one grants the Georgians their proud claim that they are more European by 500 years than their Russian neighbors (Georgia was christianized in the fourth century)....

It was not difficult to persuade Paul Robinson from Los Alamos to join in this venture. The grouchy head of the Intourist office now admitted that a car could be found—if I would pay him in dollars—a transaction strictly illegal in Moscow. I produced a couple of US traveler checks and was given the license number of the taxi. The driver would be waiting for us on Saturday morning at seven o'clock sharp, it would be a long drive. I suggested to Paul that we take Peter along as interpreter.

After intermitted rain all week, Saturday turned out to be brilliant. We left Tbilisi behind and after passing Mtskheta, the old royal capital of western Georgia, drove along the Aragvi river through rolling hills covered by dense forests of oaks, chestnuts, wild cherry trees, and acacias, a vegetation which one finds in Western Europe only on the slopes of Mt. Etna.

Small villages passed, dusty Dusheti, picturesque Ananuri with a castle enclosing two old churches. Behind Passanauri the road, following the White Aragvi, rose steeply, the mountains turned bare. It was here that we encountered the first herd of sheep led by mighty, vile billy-goats and driven on by wild-looking shepherds on horseback. The driver explained that they were part of the annual spring migration of the herds to their summer pastures. We should have patience, the sheep would soon become a major traffic obstacle, often slowing us to a crawl.

We had reached the bridge near the village of Mleti, where the real mountain road began. A feat of 19th-century engineering, it climbed in hair-pin turns a thousand meters up a steep mountain side, offering a splendid view of the Aragvi valley and the snow-covered mountains to the north. I soon lost count, there must have been several thousand sheep on the road. I had not known how true the old adage was that sheep in a herd were dumb, nothing helped, neither honking, shouting, or banging one's hand on the door of the car. The shepherds were entirely uncooperative, and sometimes outspokenly furious. Many times we had to wait until a herd had passed. Eventually the driver produced a broom, with which one of us had to part this sea of wool.

Gudauri with its celebrated hospice appeared and another incomparable view. In the 1990s an Austrian group built a modern hotel there, where one can now spend uncrowded ski vacations.

It was the last day of May, but Djvari Pass, the 2438-meter Pass of the Cross, was still under six feet of snow. The road disappeared into a channel full of bottomless potholes. On a hill-side a few skiers hitched rides on an improvised rope tow.

The northern side of the range was bare and dry. Red volcanic rocks alternated with

ancient, heavily eroded shist. The road descended into a sequence of jumbled flood plains of the Terek river, which eventually leaves Georgia through the Darian Gorge, the *Portae Caspiae* or the Gates of the Alani into Chechenya and the Southern Russian plains. The Terek separates the Georgian-speaking mountain tribes in Tusheti to the east from the Indo-European Osseti in the valleys to the west. Much maligned by the Georgians, the Osseti are the last remnants of the Alans and Goths, left behind when they migrated to Italy, Spain, and North Africa.

Before we reached Kazbegi the road circled the village of Sioni, with an old basilica and a watchtower on a rock surrounded by an impressive mountain amphitheater. And suddenly we were face to face with the mighty, ice-covered cone of Mt. Kazbeg, veiled by drifting clouds, and in front of it, on a lower mountain the black silhouette of *Mtatsminda Zameba*, the Church of the Holy Trinity, a landmark of Georgia.

The view of the mountain from the verandah of the grimy Kazbegi village restaurant was superb. On recommendation of our driver we ordered *khashi* a powerful tripe soup with piles of garlic and floating sheep's knuckles.

After lunch I persuaded my companions to hike to Mtatsminda Zameba. My Baedeker promised an overwhelming view of the mountain from there. The driver agreed to drive us as far as the small village of Gergeti on the other side of the valley.

Gergeti was a sight to behold: maybe twenty two-story houses covered with corrugated sheet-metal, each with a balcony towards the east. In true Georgian elegance the local peasant women wore brightly colored platform shoes, the latest fashion! But the funniest sight were the innumerable small, long-haired, black pigs, which wallowed in the morass of the rain-soaked streets. Their legs were so disproportionately long that they appeared to walk on match sticks.

Searching for the right track we encountered an old Georgian in full regalia, a splendid handle-bar mustache, a once smart, black loden-jacket with silver buttons, and an ornate silver-dagger on his belt! I addressed him in a smattering of Russian, but he didn't understand. I called on Peter, who was trailing us. Peter, had to repeat his question twice before the man mumbled something in Georgian and pointed up the mountain with his arm....

The church was barred shut, but the view was worth our labors. One could now see the glistening Ortisferis Glacier that flows down the south-western flank of the mountain. The peak of Kazbeg continued to play hide and seek with us in the low afternoon light. In another month the meadows would be covered with the bloom of Caucasian rhododendrons.

On the ride back we had to fight more sheep with our broom. This time we drove in their direction. On Djvari Pass the shepherds on their horses drove them single file across the snow fields. The setting sun cast long black shadows of men and animals on white the hill sides. It was dark before we reached our hotel. I was happy.

Next morning my flight to Moscow left at six. Everyone including the stewardesses were asleep, which allowed me to take a strictly forbidden photo of the Caucasus from the plane....

The Grand Tour

June–July 1977

Moscow and The Old Rus

Shortly after my return from Tbilisi a letter arrived from the US Academy of Sciences with an offer to spend two months in the USSR! Because of the anti-Soviet propaganda in the States, very few people had applied for scholarships, and the exchange program had unexpected openings.

For a week I mulled over this windfall. I had just been there, how could I sway my management to let me go again so soon? The Tbilisi trip had not raised as much dust with the intelligence agencies as on previous occasions, and I had said nothing about my earlier plans to join the academic exchange program. Maybe the "honor" of this invitation would clear the bureaucratic problems. I dearly wanted to go. I cornered my lab director in the hallway and casually broached the subject. He was caught off-guard, scratched his head—he liked me—asked to see the invitation, and finally said, "O.K., I will support you, if you will straighten out the matter with the Air Force."

With flying hands I wrote a new schedule. I requested to spend June at Basov's lab and July visiting a list of institutes of the Soviet Academy from Minsk to Tbilisi, Tashkent, and Leningrad. The ultimate tour of the USSR! Once more, my old Baedeker became my guide. To set up the laboratory visits I searched the Soviet scientific literature for people in the laser field, and found more than I had known to exist. Some of them were far-fetched, their laboratories unknown in the West, other laboratories later turned out to be "classified" and hence outside the jurisdiction of the Soviet Academy and inaccessible to me.

In the end I concocted an audacious schedule for *every* day of my stay, enumerating

the "historical" places I would like to see on the weekends: the Golden Circle of old Russian towns east of Moscow, Tashkent and Samarkand in Uzbekistan, Leningrad, and, of course, a week in Tbilisi... Minsk, which interested me only marginally, but boasted an internationally known laboratory, I threw in to make my "scientific agenda" look better.

The Air Force loved it, no American physicist had ever done such a survey of open Soviet laser research.... I called the US Academy, and the incredulous Latvian secretary there laughed, "Are you trying to pull wool over the eyes of the Russians?" I had no intentions of doing that, my proposed plan was entirely above ground. I had few doubts that Basov would make it happen, and he did. I was accepted to arrive in Moscow in early June 1977, the best time of the year....

The stern immigration officer in his glass box at Sheremetyevo airport eyed me with suspicion, measured my height, noted my hair and eye color—I had to take off my glasses—and released me into the open arms of a "delegation" of people from the Basov Lab. A true VIP reception. Vitali, the head of the new iodine project, took me into his car and presented me with a brown bag filled with Ruble notes and a piece of paper. Embarrassed he pulled out a pen and asked me to sign the receipt, assuring me that he had counted the money himself. Taken aback, I protested this unofficial protocol. "*Nu kharacho*, it's ok," he said, "The Academy has asked me to hand you the money like this, a per-diem of twenty Rubles per day, your accommodations will be taken care of by the lab." I signed below the handwritten scribble on the paper, and we set off. On the way he told me that I would be working in his section. We would meet in a few days to discuss what I could be doing. This looked fine to me, Vitali was a kind and decent man.

For the first time I stayed at the *Akademichetskaya Gostinitsa*, the guest house of the Academy of Sciences Two "modern" eight-story buildings on Leninsky Prospect, one for regular guests like me and another, off the noisy boulevard, for VIP delegations from "socialist countries." Vitali showed his ID to the strongman at the entrance, introduced me at the secretariat—all women—where I had to leave my passport in exchange for a hotel pass. He talked to the chatty key-lady on my floor—who eagerly offered her motherly services: to iron my pants, sew-on a loose button—and to watch my comings and goings, her official duty besides keeping the room keys. The room was Spartan, but boasted a thread-bare "Persian" rug. It was reached through a small entry hall with an attached bathroom taken up by a tub big enough to drown myself in, which I shared with another traveler next door. Vitali opened all faucets, flushed the toilet, and apologetically remarked, "Your hotels are more fancy, but at least everything works, and you got a private room!"

Next morning Basov's chauffeur picked me up. "Just once," Vitali had said, "to show you the way, later you can go by tram or bus." Basov, the medal of the Order of Lenin on his broad chest, welcomed me jovially in front of all his staff assembled in the familiar conference room. After a few introductory words about my "scientific program", he waved my itinerary in the air and asked the crucial question.... "And now to your 'cultural program'. We don't know all the people on your list, where did you find them?" With a straight face I told him that I didn't know them either, I had culled them from the Soviet laser literature. He smiled. "We shall see what the Secretariat of the Academy can do, but the Optics Lab in Leningrad is a closed industrial facility which you cannot visit." I nodded and indicated that I mostly wanted to see the city of Peter the Great and the Winter Palace. "I approve of your interest in our country. When you return you will have been to more places than I have. Your wishes shall be granted. —My associates and some of your friends will personally take you to the places near Moscow on your list. I wish you a very successful stay." I thought I heard the assembled troops gasp, and in my mind once again thanked Karl in Munich for having generously let me present his work on my last before visit....

Nikolai Genadievich Basov's claim to fame was that he, his teacher Alexander Mikhailovich Prokhorov, and Charles Townes of Columbia University had in 1964 received the Physics Nobel Prize for the 1952 discovery of the maser. Basov and Prokhorov had predicted the phenomenon and Townes had built the first device.—A maser is the microwave equivalent of a laser (**M**icrowave *respectively* **L**ight **A**mplification by **S**timulated **E**mission of **R**adiation).

Basov and Prokhorov were completely different men. Prokhorov was one of the impeccable doyen of Russian science, Basov an operator of Soviet power who was revered by his associates and hated by his enemies. Prokhorov did not have to prove his party loyalty, he had been born in Australia to revolutionary refugees from Imperial Russia who had returned to the Soviet Union, an implacably honest man. A deep rift had developed between the two men and their laboratories. When Basov rose to the position of director of the Lebedev Institute, a separate, independent institute had been built for Prokhorov on the same grounds. There existed a bridge between the two laboratories, which was always locked during my time. I was known as a Basov protégé. On conferences and in the cafeteria of the Lebedev I met many of Prokhorov's co-workers. They were very open, I never had a problem with this rift, but it took fourteen years before some of my friends in Prokhorov's institute made official arrangements for me to meet the great man. My final visit to the Soviet Union during Perestroika in 1989 was arranged by Prokhorov—because Basov had been voted out of his director's position by the scientific personnel of the Lebedev....

But in 1977 these events were in the far, unimaginable future, I had to tread carefully at the Lebedev.

I was given a desk in a large laboratory room with five other students. The first thing I did was ask to use the toilet. At my workplace in Los Angeles we had to accompany outsiders to the toilet and wait there for their reappearance. Not here! The toilet facility was neither elegant nor clean, but it was not "classified."

Vitali and I had a relaxed conference in his office. Aware that little research could be accomplished in four weeks, we agreed on some small paper project, which never came to much. But I had lively discussions with my office mates, they were most curious. They were very aware of the differences in scientific methodology between East and West, and I offered them an explanation: It was the time when the left-right-hemisphere theory had emerged in neuro-psychology. I postulated that Russians did their physics in their non-linear right hemisphere, their strengths were non-linear mathematics and spectacular visions of unimaginable processes which they were even permitted to publish. In the linear-rational, left-hemispheric West such hunches were laughed at, and publishing them was out of question. I gave them several examples, e.g., Prokhorov's and Basov's idea of the maser was one such piece of right-hemispheric science, and they got the Nobel Prize for it—when Townes was able to show experimentally that it could be done. Whereupon my colleagues told me that the maser-idea had really been invented by one V. A. Fabrikant, a post-graduate student in Prohkorov's lab, who in 1951 had been given a Soviet patent for his idea. They did not say so, but implied that Basov and Prokhorov had merely appropriated Fabrikant's idea.... On a later visit a senior member of Prohkorov's lab confirmed this story. The Nobel Committee had decided that, because Fabrikant's patent had been classified as a Soviet state secret, they could not include Fabrikant in the award....

I would finish my psychological lectures with the flourish, "This is why I keep coming here. I never return without a bag full of new ideas." Which happened to be true, and one such high-flying Russian vision would eventual in 1993 contribute to my undoing as a physicist.

These discourses soon became well known at the institute. I had to give an hour-long lecture on left and right brain thinking to Vitali and Friedrich, whom I had met at the 1976 banquet and who worked in Vitali's group. Friedrich expressed skepticism, but Vitali was impressed. From then on he would introduce me with the words, "Ask him, he has a very interesting theory on scientific thinking." Eventually Vitali persuaded Basov that I should give a seminar on the subject. I spent a sleepless night trying to put together a coherent presentation. It was hot in my room at the academic guest-

house, and the noisy trucks rumbled by under my open window until three in the morning.

Soviet protocol saved me from this embarrassment. Yuri, a senior associate and the head of the seminar, cornered me in the hall a few days later and laughing said, " Rolf, I am sorry, but as long as I run this seminar you cannot talk about these matters. I have spoken with Basov. Talk to anybody you want about your ideas in privacy, but not in a public forum on 'Soviet Philosophy'." I was so relieved that I would have hugged him, had he not been so short.

Feeling that political criticism of the USSR would be unproductive and impolite towards my hosts, I avoided political discussions whenever possible. This was not difficult. I was the guest, moreover one without any personal ideological agenda. By comparison with my aggressively opinionated friends in the US, people I came in contact with in the USSR were singularly considerate—only once during the height of the Reagan administration in 1984 was I harangued about aggressive American policies—I saw no reason to question their system. I could always leave, but they lived there. Their system was their business not mine. In part their restraint seemed to have to do with their idea that "politics" was "dirty"—and, on the other end of the spectrum, that "communism" was a wishful "*mental" state* in the far future, *quasi* in heaven.... What they were pursuing, they called "socialism", and to them it was an indisputable conclusion, that it was ethically superior to "capitalism". How could I have argued with them?

For similar reasons I avoided people who were visibly unhappy with the Soviet Union and never met a true dissident. I couldn't afford to be associated with or offer help and advice to those people. I would not have been invited again. Every time I went to the USSR, US-Security warned me that being from a semi-military institution I would be subject to manipulations by the KGB, surreptitious searches of my room and luggage, seductions, and a general surveillance by their agents. To test this possibility I laid out a hair on my travel bag when I left my room. It was never disturbed. Yes, four packs of Marlboro vanished one day out of my dresser, probably swiped by the cleaning lady, too small a loss to complain about. As I became familiar with Moscow I roamed farther from the tourist centers into areas where no foreigner would have gone by himself: the dilapidated monastery where the Romanovs were buried—at that time a machine park, —into small "working churches", as Vitali called them, through the backyards of the Arbat district, or once around Moscow on the Metro. All my bells were on high alert on such expeditions, but I was never followed by any sinister agent. Had I discovered one, I would have bought him a *marozhone*, an ice-cream in a paper cup.

It has never been well understood by my western colleagues that my being a guest of the Academy offered me a large amount of protection. Founded in the 18th century along the lines of German academic institutions, the Academy enjoyed a kind of extraterritorial autonomy even in Soviet times. Had I breached Soviet etiquette seriously, I would have first been called into Basov's office. The KGB, undoubtedly well informed about me, must have considered me a harmless intellectual fool, and Basov and his associates put a trust in me, which I barely deserved. "You are so incredibly open and honest!" one young colleague said.

Every weekend someone from the lab drove me to another of the gold-domed towns of the Old Rus. On a beautiful Sunday Friedrich, his wife Lillian, and their teen-age daughter took me to Zagorsk again. The place was crowded with droves of pilgrims. Peasant women with kerchiefs from the villages, some on crutches and "fine ladies" from the city moved from one church to the other, praying, singing, and crossing themselves. A bearded old man reminded me of Tolstoi. With Lilian's express approval I was able to look at the famous Rubelyov icons in the darkness of Trinity Cathedral. A magnificently robed priest swung a smoking censer in front of the iconostasis accompanied by uncounted repetitions of *Gospodi pomilui—Lord forgive me* by the densely packed, standing believers. Each time a wave of crossing hands swept through the congregation.

Outside, a long line of women with pails and bottles moved patiently through a fountain house where the miraculous "Holy Water of the Mother of God" was dispensed, a cure for the lame and the sick.

In a fenced-off garden on the periphery I discovered two young acolytes walking about reciting from their prayer books. Friedrich explained that Zagorsk was one of only two seminaries for aspiring priests in Russia. Unfortunately, he said, there were by far too few priests to care for the village churches, which was one reason why so many were boarded up.— Historically, as I would later learn on Mount Athos and in Georgia, the obligation of the Orthodox monks is primarily to venerate the holy icons, and of the clergy to perform mass, baptisms, marriages, and the last rites. For that reason throughout the centuries Clergy and Monks were sharply distinguished. Social services, caring for the destitute, orphans, and schools were the responsibility of the secular state authorities, once the crown, which is why in post-Soviet times the Orthodox Church has barely paid attention to the social needs of the community.

Later we had a stylish picnic in the woods: folding chairs and a tablecloth, cooled orange juice for the Californian guest, Russian lacquer bowls, painted wooden spoons, and cucumber-and-potato salad.... and were nearly eaten by enormous mosquitoes.

Lillian, it now turned out, was a highly regarded cardiologist at Russia's foremost cardiology institute. She spoke excellent English and knew Asia and the West well, an intelligent, sensitive, and charming woman.... Yet she would not be able fifteen years later to save a badly depressed Friedrich from dying of a massive heart attack.

Genya, my good friend, was to drive me to Rostov-Velikhi, Pereslavl-Zaleskii, and Yaroslavl on the Volga, a hundred kilometers east of Zagorsk. Under a deep blue sky and billowing clouds these two days became an unforgettable encounter with the old Russia. Imagine a flat, spacious green landscape dotted with small villages of crooked wooden peasant hovels, from which rise the mighty walls and towers of these fortified towns!

Rostov appeared like a mirage on the alluvial shores of Lake Nero. Genya persuaded a young boy to row us through the reeds out into the open water. Six churches, topped with five domes each, some covered with lead shingles, some gilded, rose above the walls of the Rostov Kremlin. In search of a free entry we circled its bastions and gate chapels, flanked by round towers decked with birch shingles, as Genya told me with glowing eyes. This was Russia! He had never been there.... Genya got so excited that he tore his East-German film, and I had to cover him with a blanket from the car to spool it back safely.

A small, opening in the battlement framed the eleven white towers and gray domes of the Uspensky Cathedral—backed by a huge black cloud.... We slipped through this door unseen and breathlessly ran from place to place to catch the improbable light of this day: golden reflections in the windows of the ecclesiastical palace and more in a pond, which had served as the mold for the largest bell of the famous carillon, stark shadows on the white walls, the carved ends of shingles overhanging the parapets, brick-red chimneys on a lead roof, the massive squat bell tower next to the Uspensky Sobor *extra muras*, and the five powder-blue onion domes of the church of Saint John the Baptist in the Market Square....

We had to tear ourselves away from this apparition to reach the Volga before nightfall. A picture of Genya, the river to his left, has survived as a symbol of its power on the imagination of even the most intellectual Russian. Anatol once asked me at the banks of the Mississippi whether I felt being drawn to this stream. When I shook my head, he said, "Well, this shows that you are not a true American...."

We stayed in a modest hotel in Yaroslavl, tried in vain next morning to get into a couple of churches famous for their frescoes. On the way back to Moscow we took a brief look at the small, dilapidated Kremlin of Perislavl-Zaleskii—and spent another hour in Rostov....

I asked Genya, who had been so embarrassed during our first visit to Zagorsk, what he felt. He said thoughtfully, "I don't know. Every time you come here, you take me to places that turn out to have such a large meaning for me, and I have never been to. You have been showing me Russia. It's strange. I must take Zoya to Rostov, but we have so little time for such excursions." He made me happy.

Two weeks later Genya organized an excursion to Vladimir and the Church-on-the-Nerl. He had even scared up an art historian friend of his. We piled into his old Volga and drove off along a new highway. The speed of the car was no longer restricted by a governor, but Genya's driving was as erratic as before—and he would remain that way, it was the workings of his mind. We were soon all engaged in looking out for the GAI, the traffic police, who sat in watchtowers every ten kilometers along the road and merciless, whistled offenders to a stop.

Vladimir once was the capital of the fiefdom of a Boyar who in the 12th century first coerced the local chieftains into a common eastern kingdom independent of Kiev, the beginning of Rus. A cathedral, painted with frescoes by Rubelyov and an earlier church dedicated to St. Dimitri are the proud monuments of this time. To my surprise the Dimitri Sobor looked very much Georgian. Russian churches are unadorned on the outside, this one was covered with archers on horseback chasing Mesopotamian tigers through dense Mediterranean foliage. The art historian woman had no explanation, and her Russian patriotism was clearly offended by my suggestion. Later at the much beloved, romantic Church on the Nerl, a very similar cubist building standing alone near Bogolubova in the meadows of the Nerl river, their historical saga emerged. The church on the Nerl had been built as a "blood church" by one of the Bugolubov Boyars in atonement for his murdering his brother. His son had been the first husband of Queen Tamara of Georgia. I concluded that it was she who sent her master builders to erect these two churches. Tamara later divorced her Russian husband—did he drink too much?—because their marriage seems to have never been consummated. The churches are still standing.

The walk through the Nerl meadows in the company of throngs of Sunday hikers and their children has remained in my memory, as an intimate vision of Russia.

One evening Vitali invited me for dinner. He took me to the most glittering hotel in Moscow, where all the Socialist delegations stayed. He had never been inside and was as nervous as I was curious. He presented an official paper to the guard at the entry. A cold, grand foyer in polished black marble received us. Our coats were taken off our shoulders by young ladies instead of the usual grandmothers in charge of checkrooms elsewhere. A vast modernistic dining hall, chairs in red upholstery, red and black

leather decor. Vitali whispered that the hotel had been built by a Finnish firm, paid for by precious "valuta." The place was empty save for a North Vietnamese delegation in sky-blue uniforms who would, on a command by their leader, suddenly jump up, glasses in hand, shout an unison toast, gulp down the vodka, and sit down again.

I don't remember what we ate, but we had barely taken our seats, when two young women, elegantly dressed in black, sat down at our table and ordered a bottle of "*Champanskoe*" for themselves. Vitali was completely nonplused and very embarrassed. "They are prostitutes!" he whispered to me. I laughed and told him that we were in a big city, the only question was, who had sent them and who would pay for them, the Secret Service, or were they operating on their own initiative? He didn't know, "I guess," he said with a faint smile, "half and half!" Eventually he told them to get lost, they left the champagne behind and vanished. Vitali, to his great annoyance, later found the bottle on his bill—as was to be expected. Poor innocent Vitali, this happening spoiled the whole evening for him and pursued him for some time—supposedly there were no prostitutes in the Soviet Union.

A few days later, early in the morning, there was a sharp knock at my door at the Academy Hotel. When I opened, draped only in a towel, a young, tough-looking man stood there telling me, that I had to stay in my room for an hour. He made himself comfortable with a newspaper in the only chair and pointed at the bed for me to sit on. Half-naked, I crossed my legs and quietly meditated on my predicament. The explanation for this house arrest came half an hour later, when there was a wave of great applause rolling down Leninsky Prospect. My man put the paper down, looked out the window and motioned me to have a look myself. I declined haughtily. Some potentate from one of the Socialist countries was driven by on his way from the airport. As soon as the motorcade had passed, my guard excused himself and left. My friends at the institute explained with raised eyebrows, that the guy had been sent by the Ministry of Interior—the Russian euphemism for KGB, a designation which nobody ever used aloud—to make sure that this foreigner would not throw a bomb on the VIP. —After the assassination of John Kennedy, I should have an appreciation for this security measure. The cheering crowd had been school children given the morning off to wave along the route of the foreign dignitary....

I did give pause to my friends a few times. One morning was so brilliant that I decided to go to Novodeviche and take pictures of its churches. Novodeviche, the New Virgin's Monastery, is a former convent, which has on several occasions played a decisive role in Russian history, and for that reason was in an excellent state of conservation, a true gem among the old buildings of Moscow. When I finally reached the Lebedev Institute around lunch time, everybody was in a state of anxious alarm. Had I been visited by

another KGB agent? My explanation was accepted, and I was gracefully forgiven. From then on I described the adventures of my semi-legal excursions through town in flourishing detail. They admired my enterprising courage and loved my tales.

In June the Academy had arranged for me to attend the VII International Vavilov Conference on Nonlinear Optics in Novosibirsk, my first visit to Siberia. Curiously, I have forgotten what happened on this five-day excursion, a four-hour night-flight across five time zones—which I remember, because it puzzled me for a few days that Soviet jets should fly so fast—the weather was very hot, another surprise, but the people were the same I met elsewhere at such conferences. Other pictures have been wiped out by subsequent, more lively visits to Siberia.

A similar fate befell a very brief visit to Kiev on the way to Minsk, which has also vanished in the foggy parts of my brain. It encompassed of a tour of the Institute of Physics of the Ukrainian Academy and nothing much else of special interest. Too many new people. To protect myself, in case the KGB should have interrogated me, I kept only the barest written notes. What I didn't remember was probably not worth remembering, What has survived are the intense encounters with people, and the beauty I found in most unexpected places.

Minsk and Katyn

The Academy had approved my itinerary. I was called to the Secretariat and was, in presence of Vitali, handed a block of air tickets and more Ruble notes for the trip. The local Academies and Institutes would host me at my stopovers. I stared at the tickets and summed up the fares. The total price for some 9000 miles of flying was negligible, a little over a hundred rubles (at that time about $180). I told a pleased Vitali how happy I was.

My first destination was Minsk the capital of Byelarus. A dark-haired young punk received me at the airport. In fluent English he introduced himself as my guide from the foreign office of the Byelarussian Academy of Sciences. He took me to a modern hotel in a strangely deserted area near the river. I was left to my own devices, my "guard" would pick me up at night to take me to the opera. I decided to go for a walk and find out why the area around the hotel had such a sinister aura. Bare and treeless, it had obviously been razed not too long ago to make room for the hotel and a large soccer stadium. There were no apartment buildings or houses. The city proper rose on top the higher, opposite bank of the river. Had this lowland been destroyed during the war? But the war had ended more than 30 years ago? Suddenly I had the hunch that

this area had once been the Jewish ghetto of Minsk. I searched for some marker or commemorative monument, nothing....

On my way back to the hotel a gracious young girl approached me with the question of whether I had already a room at the hotel. She was offering to put me up in her bed for half the price of the hotel. I told her, that I didn't have to pay for my hotel, the Academy had already taken care of that. She laughed disarmingly and disappeared. A pity, I thought, to be under such tight constraints. Maybe I am naive, but hers has remained the most charming such proposition on all my travels.

My guide appeared exactly on time. I was not a high-value visitor, who deserved an academy car, we walked across the empty quarter to the nearest bus stop. On the way I asked him, whether this area had been the ghetto. My guide looked surprised, how had I guessed? But then confirmed my hunch. It now turned out that he was Jewish himself, and he gave me a long history of the destruction of the ghetto by the Germans during the War and thereafter. The last huts had been razed only 8 years ago.

I cannot recall what we saw at the bare-bone opera house, but I remember the singers and their voices—I was to spend my last night in Minsk with them at the apartment of the director of the Institute which I visited the following morning. The opera company came from Novosibirsk, and so did the director, a gaunt, pallid man suffering from ulcers. My visit to his "semi-industrial", i.e., defense-supported laboratory was the first ever by a Western foreigner and the protocol was correspondingly tight. Of course, they showed me only harmless research, like an experiment using a fluidized pebble-bed to heat cancer patients uniformly to a higher than normal temperature, or a thin-film thermal-flash experiment to ultra-pasteurize milk. The military projects were hidden behind closed doors. I wasn't curious, they would only have complicated my life..

That night my guide told me that the Academy had planned a special excursion for me to two places in western Byelarus: Katyn and the Victory Monument of the Great Patriotic War. He would pick me up in the morning and we would return in the late afternoon, at night I was invited to a private party at the institute director's apartment. Next morning the Institute's car would pick me up at 5:30 in the morning to take me to the airport and my 7:00 am flight to Tbilisi. These would be a punishing 24 hours, but what worried me more was the excursion to Katyn and the Victory Monument.

Katyn was, in my mind, a place in the western Byelarussian woods where the Soviets had executed 11000 officers of the Polish army after the defeat of Poland in 1940. The mass graves had been found by the advancing German army in 1941 and Hitler had, with the help of a Swedish commission and the Red Cross, converted this discovery

into big propaganda—to cover the rumors about German extermination camps in Poland.—I couldn't imagine that the Soviet government would take me to this place and gingerly inquired with my guard-guide what was Katyn. Oh, a memorial for 3.5-million Byelarussians who had been massacred by the Germans. The monument stood at the location of a village by the name of Katyn which had been razed by the Germans. Only one old man and a small child had escaped.—So, Stalin had used the atrocities of the Germans to cover up his massacre of the Polish nobility. The fake wheel of fate had been turned full circle. I had missed to inform my hosts that I was of German "nationality", now that everything had been arranged there was no way to reverse such delicate matters. My young man had, of course, no idea of the massacre of the Polish officers, and I was not going to enlighten him. In addition I couldn't very well refuse to honor the victims of German atrocities. I have to give my guide credit, when I told him that I was German, he had the tact to remove the victory monument from our agenda—although I had the impression, that he was glad that he did not need to take me the extra distance.

But we went to Katyn—a great surprise, one of the most tasteful monuments of its kind: Deep in the woods we came upon the remnants of the village: about 20 chimneys rising from blackened foundations. On each chimney a bell had been mounted and every quarter of an hour a different set of these bells would chime. In between the houses flowers bloomed in profusion in overgrown peasant gardens. At the entrance a modern, expressionist metal-sculpture of the old man carrying the last child in his arms. Out of sight of this intimate, deeply moving memorial a monumental arrangement of 10 huge granite boulders one for each district of Byelarus with a tablet recording the number of dead in that region. How many of these were Jews? My guide did not know, they were Byelarussians, what difference did it make whether they were Jewish or not.

A week later I discussed this experience and the question of the other Katyn with my more open-minded, i.e. anti-Russian, Georgian hosts. They knew of the Byelarussian monument, but nothing of the massacre of the Polish officers. Merab vowed to look into the matter. On my return to California, I learned from Polish friends that the Katyn of the Polish executions was some hundred kilometers further northeast.—In 1989 Cornelius and I arrived in Moscow on the day the newspapers published the Katyn story for the first time, resulting in a palpably painful depression among our friends.

The first half of the night following this emotionally exhaustive excursion, I spent with the soloists of the Novosibirsk Opera Company crammed into the living room of the Institute's director. A true Russian party, propelled by a few powerfully extrovert people, a soprano, a huge bear of a bass. A table overloaded with cold food from

caviar to sturgeon, sliced meat, all kinds of pickled and fresh vegetables, bread, potato salad, and, of course, uncounted bottles of vodka. The mood rose exponentially with time. Nobody appeared drunk, but they drank a lot. Produced by a high-bosomed alto, the evening began with arousing, passionate, patriotic war songs, which gave me shivers. Later it turned to arias and duets from their opera repertoire. The powerful voice of a self-possessed soprano made quite literally the window panes rattle. It was two in the morning when someone drove me to my hotel. At 5:30 the institute's car arrived to take me to the airport....

My hosts had presented me with a picture book on Katyn. I had left it behind at the bottom of a drawer in the hotel. I was already in check-in when a messenger arrived with the book, "you forgot it in your room!"....

I slept most of the way to Tbilisi missing the Crimean, the Black Sea, and Western Georgia.

Tbilisi

The Intourist lady at Tbilisi Airport—for 8 years always the same woman—delivered me to a blonde in her thirties. Behind her towered a broad-shouldered man with a good-natured, lopsided smile. "Welcome Herr Prof. Gross in Tbilisi," said the blonde in strangely antiquated but fluent German. "Call me Sophie, the second baptismal name my parents gave me. My Georgian name will be too cumbersome for you to remember, and may I introduce," she turned to the big man, "Professor Merab Djibladze, my cousin." His face turned into a serious frown for a few seconds. We shook hands, while Sophie asked her most burning question, "We received your letter and are still mystified how you found Merab?" "Well," I told Sophie, "Prof. Djibladze was the only laser physicist at Tbilisi University whose name I discovered in the scientific literature. I am interested in his work—and in Georgia.—But how did you know that I speak German?" Sophie translated into Georgian and Merab heaved a relieved sigh. "The *officials* informed us that you were German by nationality," said Sophie.

What a nice man Merab was! After my tense hosts in Minsk and at the Lebedev it was true luck to have drawn this man from my scientific lottery. Merab took us to his beat-up Zhiguli (Soviet Fiat). I won a short squabble with Sophie to sit in the back, so she could better translate our conversation to Merab, and off we drove on an early-morning tour of Tbilisi.

"Oh," said Sophie with a charming pout of her round Georgian mouth. "We are so

relieved, that you are not the 'very important person' we had expected. Merab and I think we could understand each other easily. By the way, Merab speaks a little English, I don't. I teach German language courses at the university." Thus began the friendship with these dear two people which despite all difficulties would last into the next century.

Merab pushed a cassette into a home-rigged stereo player hanging in a tangle of wires under his dashboard, and the car filled with the sounds of Bach's *Two-part Inventions* —jazzed up—by Jacques Lussier's combo band. Lussier would provide the background music for the remainder of my week in Tbilisi.

Merab drove us across the Kura bridge into Old Town. Sophie explained the sights. We passed the Metekhi church and the valley of smelly sulfurous baths. On a ridge above the valley rose a huge cubist metal sculpture of an armored woman with a sword in one hand and a chalice in the other. It looked monumentally dictatorial, and I had wondered about its origin on my previous visit. I asked, "what is that giant stainless-steel-woman up there on the mountain?" "Oh, she is the Mother of Georgia," said Sophie laughing and then talked briefly to Merab in Georgian, who nodded. "Is she not horrible? The Central Committee of the Georgian Communist Party had her installed to remind us that we are not Russians!"

We were soon stalled in a heavy traffic jam in the narrow streets of the old town. Apparently Merab was making a detour around Lenin Square. It needed no explanation, in its middle stood an over-life-size, generic statue of the great "philosopher" blessing the faithful with raised arm. Stuck in the traffic circling the square Sophie turned around, "Look quickly," she said, "from here Mother Georgia holds her sword right above Lenin's head, ready to strike." She giggled and Merab's smile covered his whole face.

What a delight! In my travels in the Soviet Union nobody, not even Anatol had ever made light-hearted fun of the Great Icon of Soviet Faith. After all, I was a "foreigner", suspected of spying and seducing the True Believers with corrosive Western ideas and mores.

As we drove along Rustaveli Prospekt past the art-nouveau Rustaveli Theater, Jacques Lussier was jazzing up my favorite seventh Invention, and the smog from the exhausts of hundreds of cars in four lanes made breathing difficult: Tbilisi, at last!

At the hotel Merab sat on the only chair in the room, while Sophie and I shared the edge of the bed. I brought out my list of places I wanted to see: Close to Tbilisi there were Mtskheta, Djvari, and Shio-Mgvime, an 11th-century monastery in a wildly

romantic setting. Easy to reach, all of these were graciously granted on the spot.

Further afield I would have liked to visit the old cave city of Uplistsikhe, of which I had seen intriguing photographs, and in Kakheti the cathedral of Alaverdi and the three eighth-century churches of Shuamta. Merab raised his eyebrows, it was difficult to take a foreigner to these places without a special permit from the Ministry of the Interior. My last and greatest wish was to see David Garedja, a monastic cave complex covered with frescoes somewhere in the desert south-east of Tbilisi. I had not been able to find the place on any map.

With a well played expression of pained apology on his face Merab raised his hands and simply said "not possible!" I could not elicit any explanation from the two. They suddenly did not understand English nor German. I concluded that it was a closed area and dropped the subject.

"Where did you find all this information?" asked Sophie with a frown. "I have never been to David Garedja myself. Why are you so interested in old Georgian monuments? We were told your are a physicist."

I confided that I had spent several months reading up on Georgian architecture, using an East-German book my father had given me. They were flattered and excited, and with a sigh Sophie said, "I will have to go to my mother's library and read up on the history of Georgian art. I feel so ignorant." "Yes, do that, it will do you good!" I chuckled, "I do not remember the dates and the history of these places. You see, I left my book at home." They really felt mortified and ill prepared to satisfy my curiosity. "Oh," I smiled, "there are more places I would like to see, but not this time. I will tell you later." Sophie translated for Merab and a worried cloud passed over his good-natured face. "No, no, don't worry," I told them to reassure Merab. "I am not interested in state secrets or strategic information. I don't care about any of those, they are all the same to me. Let's forget them."

It had become late morning and I mentioned that I had not eaten anything since I had left Minsk. Sophie discussed the matter with Merab. "Let's go to Lagridze," she finally suggested, "it's an 'authentic Georgian' place. Merab has to teach this afternoon."

Sophie walked me down Rustaveli Prospekt. On the way she introduced me to a German *Konditorei* with delicious *Torte*, cream-puffs, and *Kuchenstücke*, a foreign bookstore, and the old oriental-style Opera House built by a German architect in the late 1880s.

Sophie looked questioningly at me "This place is famous not only for its productions,

but also because a couple of years ago it was the site of a mysterious fire." I had heard about this incidence, but was again taken by surprise that she should mention it so openly. "The fire was laid by nationalist extremists who demanded that Georgian remain our first language as it is guaranteed to us in the Soviet constitution. The Moscow Center was trying to take that right away and replace Georgian with Russian. The main stage burned down, but the arsonists were caught and executed. Our life is complicated and often dangerous. You must understand Merab's occasional hesitation, please."

We crossed the busy street by gingerly jay-dancing through the dense traffic. The attention and agility of the drivers was amazing. "Of course, we should not do this, but it's fun," she admitted giggling when we had reached the opposite curb.

She led me into an underground vault beneath *Lagridze's Café*, a sign in golden Georgian letters over the entrance. "It says *hachapuri*," said Sophie A smell of freshly baked bread wafted up the stairs. People were expectantly crowding in front of an oven into which the baker was pushing large metal trays with dozens of square, hand-sized, cross-cut breads revealing a white cheese filling. Just before putting them into the oven he popped a raw egg on each of them. "These are Adjarian hachapuri," Sophie explained. The waiting crowd was scrutinizing us, sympathetically and amused, not with the suspicious unsmiling

A great shoving and pushing began when the hachapuri emerged from the oven. Over all the waiting heads the baker passed Sophie two breads with a comment in Georgian that made her blush. She refused to translate. I gave her a quick kiss, which she did not refuse, but she blushed even deeper. She looked very charming, and everybody was smiling approvingly. "Bitte, you must not kiss me in public," she said. Surrounded by mirrors on three sides, we sat at a small round table in one of the claustrophobic cellar rooms, the gossip of the day—poor dear Sophie. Accompanied by a pitcher of colorful lemonade a single hachapuri was a full meal.

At his university laboratory Merab introduced me to his graduate students, four men and two women, who all spoke passable English and were as delightful as their professor. They were pursuing a few interesting experiments on Q-switched fiber-lasers, but funding was decidedly below the level at the Lebedev. I asked Merab, who had told me that he had graduated with a Ph.D. from Prokhorov's Institute in Moscow, why he had returned to Tbilisi. The answer was simple. Here he was his own master, he liked the easy life of Tbilisi, and he had inherited a large apartment from his father, a professor of geography, which he shared with his mother. Besides all his true friends lived in Tbilisi.

One of the women prepared coffee, a rarity in Moscow, and the talk turned to an early summer excursion to Kakheti they were planning. I would be invited. Merab introduced one of his students as a professional race-car driver, he would drive the institute's van. It then became clear to me, that he had invented this excursion solely for my benefit! He told me that Jeffrey, a Canadian had a few months ago suffered a serious brain concussion in an auto accident on a trip with a group of Georgian girls. Since then the government had restricted all travel by foreigners to professionally driven cars.... He smiled broadly, pleased with my surprise and happiness.

Early, on a magnificent Saturday morning the van arrived at my hotel already filled with graduate students, two baskets with picnic utensils, and a huge empty wicker bottle for the food and wine they would buy in Telavi. Sophie was also of the party. We drove east along the edge of the steppe that stretched south into Azerbaijan, through low hills into the verdant valley of Kakheti. Between fields and vineyards, the best Georgian wine came from here, we drove through a string of villages to Alaverdi. The snow covered peaks of the Eastern Kaukasus drew closer as the valley narrowed.

The steep, white cathedral of Alaverdi rose from the surrounding vineyards. It was enclosed by ramparts erected by some Persian potentate who had made it his residence in the 17th century. Although built in the early 12th century its nave was as high and narrow as a French Gothic cathedral. A late stone iconostasis and a badly damaged fresco of the Mother of God in the apse were the only remnants of its interior decoration. Led by Sophie we climbed into the attic over the intersection of the cross-nave which was, as in other Georgian churches, crowned by a hexagonal tower. Despite its bareness Alaverdi has, over the years and many later visits, become my favorite Georgian cathedral.

In Telavi was market day, and while the men went to buy meat for shashlik and large circular rounds of flat-bread, Merab filled the bottle with local wine, and Sophie and I combed the vegetable stands for tomatoes, onions, garlic, and a collection of various fresh herbs, the indispensable accompaniments of Georgian dishes. Our baskets filled, Zhurab the race-driver drove us through dense woods up to Shuamta, where we found at the edge of a meadow the three very old churches, actually small chapels, flowers blooming on their slate-covered roofs.

The picnic got under way. The men cut hazelnut sticks from the bushes on which they roasted the shashlik over an open fire. A table cloth was spread out with much merriment, and the wine made the rounds. Soon my head was spinning. And then, attracted by the noise, appeared a farmer with a horse and the full regalia of a Georgian prince, a high, black fur hat, an ornate coat, and a sword. Although I was not

very steady, I let myself be persuaded to put on the costume, was helped on to the horse, and held by two giggling girls was led in circles around the meadow.... I have never seen the photos they took of the bearded foreigner, which may be for the better. I fell into the grass and saw the world drowning. Sophie revived me with a handkerchief impregnated with her perfume... Eventually the good shashlik put me back on my feet.

It got very late. The full moon was swinging from one side of the van to the other as Zhurab drove us on an unpaved, winding shortcut through the mountains towards Tbilisi. Dead tired I stretched out on the back-seat with my head in the lap of one of the girls. Sophie receited Kakhetian fairy-tales and then said, "Today everyone calls me Sophiko"—with an aspirated p'—"so, you may too." And that is what she has remained to us, *chemo Sop'iko*.

I was only once startled out of my reveries by the flickering light of a two-stories-high, bright flame next to the road, the burn-off of an oil well. For a few seconds I made out a sign in Russian *Zagaredzho* pointing south. The direction of my dreams. "Yes," said Merab, "the road to David Garedja—but the Soviet Army is practicing the invasion of Afghanistan there. We cannot go there."

Every day the two took me to another place, to the "Open-Air Museum of Georgian Village Architecture" where I ate ripe apricots by the hand-full, to the "Museum of Fine Arts", where Sophie had alarmed a German-speaking girl to show me the magnificent Georgian gold-cloisonné plaques and icons, to the Royal Cathedral in Mtskheta and a supper at an "original Georgian" restaurant, and even to a rock concert in the new Tbilisi symphony hall.

On the last day, I was due to fly to Tashkent at midnight, Merab suggested to visit the Botanical Garden. I had told him of my search for my great-uncle Konrad Gross, whom I suspected of having been involved in the founding of that garden. Merab knew that a German professor had laid the foundations, but didn't know his name. Alone in the large park we had a long discussion of all the sensitive subjects, like Katyn, the semi-religious role of Lenin in Russian communism, and very gingerly a brief account of the many uprisings against Soviet rule in Georgia.

On the way back to my hotel Merab stopped at the Rustaveli Theater and came back with two tickets for a performance of Bert Brecht's "Caucasian Chalk Circle", compliments of Robert Sturua, its director and a friend of his. "You must see this play", he said, "it is *the* sensation of the Soviet Union. If it were not played in Georgian, it would have long been forbidden. Sophie will translate, and I will pick you up around eleven and take you to the airport."

This performance will remain as one of the most gripping theatrical experiences of my life. The tension in the theater was palpable, the coming and going of an ever-changing, ever-the-same oppressive government—the King in a mask that unmistakably resembled Stalin, the Brechtian commentator elevated to act as master of ceremonies, complete with microphone, throwing loops with is snaking cable. Sophiko did not have to translate much, the acting was so eloquent that it needed no words. Astounding, how Brecht's Agitprop Theater, if played at the right place and the right time, could still evoke such strong emotions.

Half-an hour before the end Merab appeared and raced us to the airport, presenting me for the last time with the despised booklet on Katyn, which I thought I had safely hidden for good in my room. He smiled understandingly and let it vanish in his pocket.

We hugged and kissed each other. They had tears in their eyes. And I flew off into a long night across Central Asia.

Tashkent and Samarkand

I arrived ungodly early, received by a sullen Russian lady from the Uzbekistan Academy of Science, who complained that they had put me on such an early flight. We did not waste another word on the way into town, and I fell asleep the minute I had reached my ice-cold room at the fancy Hotel Uzbekistan.

Around lunch time a young lady called, she would be my guide in Tashkent. We met in the lobby. Oksana, a pudgy girl, about thirty, in an outlandish outfit, a colorful American bush shirt over blue jeans, high-laced raw-leather boots, and an authentic Texan cowboy hat, which hid an obsessively cheerful face that belied her deep-seated unhappiness. All my alarms went off, was she the ludicrous trap to ensnare the unwary American scientist?—She did have a program. First we were to visit the brand new Lenin Art Museum. Then we would take in the new micro-climate-controlled mall and later have dinner at the hotel. I made a weak attempt to exclude the Lenin Museum, which plunged her into deep despair. She begged me to cooperate, it was a must for every official visitor.

What I had not know was that the center of Tashkent had been leveled fifteen years earlier by a disastrous earthquake and had been completely rebuilt in the modern international style of the sixties. Arty buildings on a strip some six kilometers long cutting right through the center of the old town. Not even that bad, the architecture reminded me of the Los Angeles Music Center but much larger: a theater and soccer

stadium, government buildings faced with white limestone, four-story-high columns carrying overhanging roofs to shade the high windows, some looking like modernistic castles others more open, interspersed with water basins from which shot rows of actually working fountains into the sky—the "climatic micro-control."

The Lenin Museum was one of these buildings, light, airy, and well exhibited. So, I was finally forced to study in detail the life and miracles of the great man, apologetically explained by my guide. The redemption was a number of to me unknown paintings of Kandinsky's Moscow period, which the government had distributed to the provinces to educate the ignorant masses. At the center of this modernistic "mall", above the epicenter of the earthquake, stood a modest futuristic temple dedicated the Ali Navoi a revered Islamic scholar and Sufi poet of the 17th century: miniatures, calligraphy, poems, carpets, and other mementos from the height of Tashkent's past.

Over dinner Oksana told me her story. She was Ukrainian. Her parents had been Kulaks who had been shipped to Uzbekistan during Stalin's collectivization. Her father had died of grief and tuberculosis. She lived in a small apartment with her mother and an older brother who suffered from some debilitating disease. She was their only provider. She had graduated from a language school in Moscow. Taking foreigners around was her only consolation. "Don't you like my costume? I put it on to ward-off your home sickness in this strange and miserable Moslem land." A Texan visitor had presented her with his hat when he left....

Touched by her story I asked her for a dance. . She was delighted, and we danced for a while among a few other couples. As customary in Soviet dinner places a band had appeared and played dance music, American pop-tunes, a long popular Russian epic to which Oksana sang the refrain... Genghis Khan, Genghis Khan... Suddenly the mood and tempo changed: an unmistakable Greek dance! I asked her where this came from. "It's Greek," she said. "There is a large Greek population in Tashkent." "Why, where did they come from?" I asked, "remnants of Alexander's Army?" She laughed. "No, refugees from the Greek Civil War whom Stalin settled here in the 1950s to keep them out of mischief.—Haven't you noticed? My name is Greek too, Oksana was the Uzbek wife of Alexander the Great, whom he married in Samarkand after he had killed his best friend."

Around eleven she asked me to take her home. I raised my brows. "No, no our apartment is much too small for you to stay overnight, and if I went with you to your room *they* would pick me up within minutes. No, I am afraid to walk home alone. The Greeks have their own police.—They got rich in rebuilding the town, and when some of them were robbed, they cut the throats of a few Muslim. That settled the matter.

Nobody will touch a Greek girl, but I am Ukrainian, I tremble at night when I am alone on the street."—I had never heard of such problems in the Soviet Union, Moscow had appeared perfectly safe at any time of the day. We slowly wandered through the night, and she told me more about her sick brother and her trite and boring life: "I have resigned myself to the sad fact that I will no longer find a man. Who would marry me?"

The day at the physics Institute of the Uzbek Academy was boring. I had chosen the wrong person, a young, minor staff-scientist who tried to impress his colleagues with my presence. The last western visitor to their laboratory had been Nobel Laureate Charles Townes - likewise sent by Basov and the Moscow Academy. So, although not as famous as Townes, I was a protégé of Basov and had to be accorded some kind of VIP treatment, which including a stiff hour in the office of the Rector of Tashkent University.

My interpreter on that day was the sullen-faced lady from the Academy who had received me at the airport. When by late afternoon we reached the office of the foreign officer of the Academy, who was to decide and arrange for my trip to Samarkand, word must have spread that I was a "false Dimitri". The foreign secretary raised his voice and shouted that the Uzbek Academy was no tourist office, if I wanted to go to Samarkand I should arrange that with Intourist and pay myself. Which for once I was willing to do, if he would help me in getting a reduced price from Intourist. He became even more explicit. He had been to the West—which turned out to have been Budapest—by comparison to the Hungarian travel organization Intourist was honest and cheap. He held the door open, and we left. Back on the street the two girls apologized to me: The gentleman was a Tajik, and was well known for being uncivilized.

I inquired with Intourist about the cost of flying to and spending one day in Samarkand. It was just over $100 and included the flights, a guide, a taxi, and lunch at a hotel. I insisted that they take off the guide, the taxi, and the lunch. Next morning I persuaded Oksana to take me to the airport by public bus. Within half an hour, I had purchased a return flight to Samarkand at a total cost of $18.

Back at the hotel two Intourist girls were waiting for me. Triumphantly waving my green ticket I tried to walk past them. They attacked, overcome by giggles one held my left arm, the other tried to grab the ticket. "No," I said, "not this way. I paid for this ticket, and it is perfectly valid." They took me to their supervisor at the lobby-counter. The woman told me coolly that she had already canceled the ticket with Aeroflot. I was not permitted to go by myself. She would give me credit for the ticket when I paid her for my arrangements. "How much would that be?" I asked ready to blow my stack. "98 Dollars-US." At that I let go in a booming voice: Intourist was an exploitive, capitalist

institution which ripped-off foreign tourists to make huge profits... etc. The Intourist girls got red faces, but what I had not counted on was the applause and loud cheers of a group of young French tourist which had filled the lobby behind me.... I paid by travelers' check and walked out, followed by Oksana and the two girls who had originally been sent to ambush me. Please, would I listen to them, my accusations were highly unjust, they were not exploitive, I was in a socialist country with the highest moral standards. I smiled and assured them that they were pretty and honest, but the system was rotten.

Oksana had carefully kept out of this war. I felt I owed her something, could I make her a present of something she had wanted for a long time. To my surprise she readily accepted, would I buy her one of the collapsible pocket umbrellas they sold in the foreign-currency store? We went there, and I made her happy and also bought some beautiful op-striped silk material for Barbara.

Samarkand became an adventure, if mostly because of my obstinacy. An Intourist car drove me to Tashkent International airport, another one picked me up in Samarkand. The driver told me that he would be at my disposal all day. I decided to use him to go to the distant places and took a hapless, stranded Dutch couple along, who had escaped from India near penniless—probably because of a drug violation... We drove to Afrasiab, the unexcavated site of Alexander's Makaranda, which had been destroyed by Genghis Khan (1220): A vast area of "mole-hills" covering the melted-down adobe palaces and houses. I tried to imagine the Greek-Buddhist-Soghdianian riches hidden under the earth.—Twenty years later, Prof. Carl Lamberg-Karlovsky of Harvard, listening to my enthusiastic stories of Central Asia—he was then digging in Afrasiab together with French and Russian archeologists—offered me the job of operating a novel ultrasound instrument to probe in the field. The promise never came to anything.—We had a quick visit to Shah-I-Zinda, the Timurid necropolis and a peek at Gur-Emir, Timurs mausoleum, before I dismissed the driver and continued on foot.

It was infernally hot, and at noon I shared a shaded dais at a *chaihana*, a teahouse, cross-legged with a colorful Uzbek family, drinking green tea by the bucket. They eyed me inquisitively, but my Russian and theirs was not good enough for a conversation.

The blinding light brought out all the colors of the tiles on the three magnificent Medrese ringing the Registran, the Great Square of Timurid Samarkand. I was the only visitor and went wild taking photographs, which were never surpassed on subsequent visits.

On my way to the Bibi-Hanum Mosque, which had not yet been reconstructed as today, a funeral passed. A brown Army truck, red flags waving from each of its four corners,

carried the casket covered with the green cloth of the Prophet. A man sat next to the casket pounding a huge drum, very slowly, very loud. In step with the drum a group of men walked behind the hearse. Leaving a cloud of dust behind the procession groped their way towards the vast Islamic cemeteries near Shah-i-Zinda.

Late in the afternoon, pursuing four colorfully dressed local women with my camera, I was lured into the back streets: High, brown adobe walls, separated the living quarters from the street, no windows, a single gate, mazes of outside water pipes and electric wiring. In this dust-colored landscape the women in their gaily-colored op-striped, baggy pants and kerchiefs made my eyes dizzy. They finally disappeared into one of the compounds. Lost, I erred through the narrow lanes. Somewhere I was invited to tea by several men in a chaihana. One spoke English. Many questions, "Are you a *hadji*? Here men wear beards like yours only if they have been to Mekka." They tried to pull my beard, was it genuine? I raised my arms, "Yes, I made the Hadj to Mekka—in my dreams, like the Prophet." Laughter and more tea. "You are German?!" They all wanted to shake my hand. Eventually they directed me through the maze of the old town to Gur Emir.

The low light cast deep shadows on the sienna-brown structure and its unusually shaped turquoise-blue dome. Suddenly two motorcycle policemen rolled up, sirens blaring. Hiding my camera I slipped into an alley. They cleared the square. Eventually a black SIM-limousine with closed curtains arrived from which spilled, guarded by armed strong-men, a group of portly dignitaries, foreign government tourists.

I made my way to the airport by public bus. It was still very hot and the crowded little propeller-plane sat on the tarmac for nearly an hour waiting to take off. Everyone was sweating profusely, a hard test of concentration. At the hotel in Tashkent I found a note by Oksana inviting me to the wedding of a cousin of my host at the institute.

The wedding took all Sunday afternoon in a large private compound in a village at the periphery of Tashkent. My first look behind the walls: several small buildings hugging the wall. Under huge old Chinar trees in the center of the yard long tables and wooden benches had been set up for the numerous guests some in local costumes. A raised platform backed by a large, exquisite heirloom carpet served in due course the wedding ceremony, a number of speakers, and eventually a band of musicians with Central Asian instruments.

The bride was veiled from had to toe in white chiffon gauze, the groom wore a well-cut western suit. The rather secular ceremony was administered by a civilian marriage clerk. Oksana explained in low a voice that there were hardly any mullahs left in Uzbekistan. They had all been killed or driven to Afghanistan during the bloody

uprisings in the late twenties. Only during the last years of World War II had the Soviet government reluctantly agreed to recruit some Sufis into the Army, because the Muslim troops had refused to fight without spiritual guidance.

Across from me sat a row of middle-aged ladies. I could sense that Oksana felt highly uncomfortable among them. She confessed to never having been at a Muslim wedding. A speaker appeared who gave an account of the life of the newly weds in Russian, liberally interspersed with the usual jokes. Everyone laughed—and then I noticed that the women across from me had had all their front teeth replaced by gold crowns. A blinding flash of gold accompanied their every laugh. "Isn't it barbarous?" whispered Oksana. "When they get married they have their teeth pulled and replaced by gold teeth to show the wealth of their husbands."

My left-hand neighbor was the man from the institute. His English was limited, but he felt responsible for my food and drink. The table was loaded with copious amounts of vodka. He had to notice when I tried my old trick to pour the vodka under the table and refill the glass with water. "You don't drink?!" he admonished me. "Not that much." I laughed, "besides this is Muslim country!" "Oh," he said quite seriously but with a guilty smile, "I am Muslim. The Quran only forbids wine, they had no vodka in those days!"

Was there to be dancing later? On Oksana's urging we left when the music started: I would have to get up at four next morning to catch the plane to Leningrad.

Leningrad

My plane left Tashkent at 6:00 am. Once again the lady from the Academy had been obliged to take me to my flight. She was in a rage and forgot to tell the flying personnel that I should be watched. I flew incognito, which had the effect that when I had to change planes at Chelyabinsk I found myself free as a bird in one of the closed cities of the Soviet Union.

Chelyabinsk was obe of the centers of the Soviet nuclear establishment and in its vicinity were two "science cities" so secret that in 1977 I vaguely knew of their existence but neither their name nor their location.. I still hadn't eaten breakfast

Hunger got the better over my curiosity. I found a *stolovaya*, a food-stand and filled myself with *sossiski* instead of military secrets. But the surprise was that nobody suspected me of being a foreigner, they probably had never seen one.

The flight across Kazakhstan to Chelyabinsk in the early morning light had been an exceptional visual experience: The two rivers Amu-Darya and Syr-Darya and a spread of lakes appeared like precious silver inlays in the dull-gray surface of the vast desert. For some reason we flew almost directly over Baikonur, the Soviet "Kosmodrome." I stared my eyes out counting the missile silos surrounding the busy site—but nobody at home was interested in this bit of intelligence.
West of the Urals, on the second leg of this 10-hour day a dense cloud cover hid the ground. Aeroflot had served an inedible *bulochka*, a bun, cold chicken pieces, and gaily colored perfumed mineral water. I arrived in Leningrad ravenously hungry and dead tired, lit a cigarette, and went in search of the Intourist office where someone would know which hotel I had been assigned to. I didn't make it across the reception hall, an irate white-haired war-veteran grabbed me by my shirt-front and sputtering expletives shoved me out into the open: "Smoking forbidden!"

Occasionally even an Intourist person was capable of making an independent decision on his own responsibility: a young man simply loaded me into an already occupied car, told the driver to which hotel to take me and to charge me an additional five rubles. The original occupant, a German businessman, was not happy—but I got to my out-of-center Hotel "Moskva", where the Academy had rented a sumptuous suite for me, two rooms and a marble bath.

I didn't hear from the Academy for two days. On the third a young man appeared who introduced himself as my guide and interpreter. He was glad to see that I had managed so well on my own—everyone was on vacation, could he join some friends on an outing this coming weekend? Sure, I said, I didn't need him. Already in the door he turned and asked me to sell him a pair of jeans. He offered 120 rubles ($220) if they were in good shape. I nearly threw him out and saw him again only on the evening before my departure, when he appeared to hand me a slip with the license number of the car which would take me to the airport.

As if this guy had put a curse on me, I came down with a debilitating diarrhea. At first I blamed it on Tashkent. I drank large amounts of black tea. I tried a pharmacy with no success. Finally I went to the American consulate—a place I usually gave a wide berth to—the nurse there gave me some pills and ominously explained that it was the chemistry of the Leningrad water, not the presence of bacteria. Some people never got used to it.—And sure enough, I found the same warning in the small print of my 60-

year old Baedeker: *"in order to make the water of St. Petersburg potable, you must boil it vigorously for 20 minutes."*

Well, at least my accommodations were first-class, the bed was comfortable, I was spared any scientific visits, and there was a hot bath any time and the view overlooking the Bolshaya Neva and a bridge that opened every night to let the big ships pass was entertaining. I roamed town in the morning and collapsed in bed in the afternoon. The worst thing was that I was all alone. For a few days I befriended a Swedish couple with two children and with less success a German girl. The Museums in town, the Hermitage, the Russian Museum, the Kazan Cathedral were overcrowded with Russian tour groups. I had, with outstretched arms, literally to plow my way through these dense, indifferent masses in order to get close to the paintings. More successful was I, because more determined in boarding one of the noisy hydrofoil boats that cross the bay to Peterhof, I spent an entire day in its park.

All of this contributed to a strong dislike for Leningrad, Peter the Great's artifice, and I still prefer Moscow. Its ethnic variety, its position at the open seam between Asia and Europe, its unabashed historical, and present day brutality, Moscow is Russian, not the Romanov's figment of the "West" that is St. Petersburg.

Friends

In 1977 a group of disgruntled American laser physicists founded another laser conference and asked me to organize the attendance from the Soviet Union. The conference would present papers by the increasing number of laser engineers supported by the Defense Department like we were, who felt snubbed by the establishment committee which selected the papers for the high-brow academic laser conferences (CLEO/IQEC). It happened that this was the year in which Basov and other members of the Soviet Academy had signed a government-sponsored letter to censor

Sakharov which had been instrumental in sending him into internal exile at Gorki. In retaliation many members of US academia refused to have any contact with their USSR colleagues and especially with Basov.

At first I could not see why we needed another laser conference, but then it occurred to me that my position would give me an opportunity to return the hospitality I had enjoyed in the Soviet Union—and offer the possibility to change a few minds among my Soviet friends, by simply affording them their own experiences, good or bad, beyond words and propaganda. In addition most of the younger scientists in the SU would never have had a chance, because only their bosses were given permission by their hierarchy to visit the US. I thought I knew exactly how to break both binds. I would write direct personal invitations to exceptional scientists I had met—by now I knew a fair number personally. My letter of invitation would be a powerful endorsement, if *they* made the effort to use it appropriately.—Finally I would recommend them to Basov, who would select the people for support by the Soviet Academy. A bold, single-handed attempt at undermining the conservative establishments on both sides of the Cold War.

It all depended on Basov. I wrote him a carefully worded letter stressing my intent to expose as yet *unknown workers* in the Soviet laboratories to the international community. I would avoid inviting *apparachiks,* directors of institutes, or Nobel Laureates—and ended in invited him personally to kick-off this effort. To my surprise I received an enthusiastic reply, promising me his full support. Unfortunately he had already other commitments and could not come this year. I was pleased and had no difficulty obtaining US visas for a group of 25 physicists whom Basov had selected—among them my hosts in Minsk, Tbilisi, and Tashkent.

Somehow the organizers of "Lasers '77", as the new conference had been named, had found additional funding to cover the hotel and living expenses of the "poor" socialist scientists... I never inquired where the money came from and still don't know. The conference became a great success, and brought me a lot of work. I had to review all papers myself, in some cases rewriting their often obscure English, and in the very end I was asked to listen to several talks before the authors delivered their papers. But it was all worth it, even if their research was often well below western standards—which was their problem not mine—the gratitude I received was overwhelming.

The conference took place just before Christmas in Orlando, Florida. As the high-light of their visit to the US, I led an oversubscribed group excursion to Disneyland. Some had tears in their eyes wishing their children to be there—"why can't we have a Disneyland in Russia?"—and all, even the most hardened skeptics, regressed to their

childhood.... On a second outing I took a few to "Miss McGrady", a harmless Southern night club. The older generation was reluctant. They had heard reports about the "immorality" of America, and were surprised that the show was raunchy but much more decent than they had expected: America the Beautiful! I tried to organize another excursion to the wonders of New York City. There I failed, the leader of the delegation worried that his innocent sheep would be attacked or robbed in the dreadful slums of the city. Two really sharp people, who had connections there, went on their own. All I needed to do was to get a variance for their visas from the State Department.

For 15 years I ran this educational tour office for Lasers 'XX, which moved first to New Orleans, then to San Francisco, and finally to Las Vegas. The Soviet attendance was never again as large as at the first time. By trying to remain politically neutral and painstakingly open-minded I made many new friends—and weathered a few difficult incidents.

One difficult day was staged by the president of the Estonian Academy, who one morning had suddenly vanished from the conference in New Orleans. My head was at stake, since I personally guaranteed that the Soviet participants adhered to the visa regulations of the State Department. Fortunately Vitali headed that delegation. He found out that the Estonian, over whom he had no jurisdiction and who traveled on a diplomatic passport, had taken a bus to Baton Rouge to meet a friend there. I called State, and the enraged secretary of the Soviet Chair demanded that I put the man on the next flight home as soon as he returned: Baton Rouge was closed, and especially to diplomats. I spent the morning desperately trying to find a flight for him—a week before Christmas—to no avail. He showed up after dinner, and with Vitali's help we had a serious talk. We reached a gentlemen's agreement that he would abide by the State Department's rules—and I put the Soviet Chair before the alternative to either find him a flight or accept the Estonian's word of honor. They relented and everything went smoothly thereafter.

New Orleans was an even greater attraction to the Russians than Orlando, and in the second year there, Basov accepted my long-standing invitation, confiding that Mark Twain had been the hero of his youth. He wanted to see the land of his beloved Huckleberry Finn. He was accompanied by a select entourage of senior co-workers, got himself invited to Livermore, and when he appeared in New Orleans, I had the thankless job of calming a group of liberal scientist, many of them my US friends, who wanted to protest Basov's actions in the Sakharov case. My argument that this was a scientific conference not a political show prevailed, and as a thank-you gesture I became the only American invited to a grand Russian party in Basov's room—celebrating his birthday! On that night I had a long serious discussion with

Basovevening I had an exceptional, serious political discussion with Basov. He had already been hassled in Berkeley, and in great earnestness told me that he greatly admired Sakharov as a man and scientist, but he did not agree with his political agenda. Besides, he, Basov, was the one who paid Sakharov's salary—to this very day. "What do my US critics want of me? Our realities are different from yours."

This must have been in 1982 since, because of the increasing militancy of the Reagan administration, my efforts in recruiting young Soviet scientists had reached a noticeable low. I asked Basov to help me find and select new interesting people in the USSR. "But Dr. Gross," he said in front of his assembled staff, "I cannot do that. Under our agreement *you* select the people and I sign-off on their travel grants. Otherwise I would be accused of favoritism." I felt that I had received a great compliment, I had changed even this powerful man's view of things....

In 1981 I had been less successful in holding off the US press, when I had invited a group of laser scientists from Gdansk, Poland. They arrived completely dispirited in the small hours of a heavily fogged-in night, the very day that Jaruzelsky had declared martial law against Solidarity. Several of the Gdansk physicists were involved in Solidarity. The deeply split group appealed to me for council and help in their situation. The Solidarity members were certain that upon their return they would be taken off the plane and imprisoned. With the help of Grazina, the only woman among them, I spent the night holding the hand of the "foreign minister" of Solidarity, who was threatening to commit suicide right in his hotel room.... I really couldn't do much beyond assuring them that the most threatened among them would be given asylum, if *they* would ask the State Department for help.

Over breakfast next morning I was approached by the one person who was an outspoken critic of Walesa's revolution. We had an astonishingly level-headed, sober discussion, in which I argued for Solidarity. The news had spread like wild fire, and when I arrived on the conference floor a television crew was haunting my hapless suicidal man. As the responsible organizer of the conference I demanded that the TV crew leave immediately, this was a private scientific conference off-limits to the general public. The reporter laughed at me, the US was a free country, and he had a public obligation to interview the Poles. "Even if you put these people into jail?" I shouted, took a conference program and held it in front of their camera. That did it, they took a film strip of me shouting at them, added some nasty commentary and departed.—This incident made me no friends among my American colleagues, but later Vitali came and applauded my resolve—adding that although he was no particular friend of Polish Solidarity, I had done the right thing....

My Polish friends, save for one who jumped plane in Canada, returned to Gdansk. The former foreign minister did spend a year in prison and survived.

I guess it was at one of these New Orleans Conferences that Edgar appeared, the man from East Berlin who, at the 1976-Symposium banquet in Moscow, had swindled the bottle of cognac from his drunk Armenian colleague. He was an uncertain, shifty character of the kind I usually took pain to avoid, but we were both Germans, and I had no positive proof of any misdeeds on his part—about which I only learned after the wall came down, and his former associates could talk freely. *Ein kleiner Mensch*, a little man like so many others—with dirty hands. When we met in New Orleans Edgar was effusive, invited me to the GDR, and presented me with a *Dresdner Stollen*, a traditional German Christmas cake: "for your family." With a choked voice he intoned, "You must miss these cherished German customs in this alien land...." I couldn't get it over my heart to tell him that we bought a *Dresdner Stollen* at Trader Joe's in LA every Christmas. But I promised to consider his invitation favorably, knowing fair well that it would be an excruciating visit to the land of our grandfathers—who had, once upon a time, spoken the same German language.

In the late 1980s, during the second Reagan term, a serious disagreement arose within the conference management over its philosophy and the origins of its finances and resulted in another schism: a Laser-Engineering-Sciences-Conference separated, which I joined, and Lasers 'XX became the highly politicized forum of the pro-Star-War faction in the Department of Defense. I remember Lasers '88 in South Lake Tahoe, (where to I had flown uninvited) at which paranoid, old Edward Teller slouched unto the podium with the help of a cane and gave a fiery anti-Soviet speech, backed by the sharp young presidential science advisor to Reagan calling the Soviet missile-reduction initiative "simply hogwash." Afterwards I spent hours calming down Viktor from Prokhorov's Institute, trying to explain to him what the expression "hogwash" meant, and why the Reagan administration was so ferociously attempting to neutralize the Soviet missile buildup. A painful exercise.

My conference activity gave me a high, if occasionally ambiguous visibility in the US, and in the USSR access to people and laboratories some of which had never been visited by any American scientist It also provided a legitimate excuse for continuing from a first-hand vantage point to observe the rapid intellectual decline of the Soviet Union. Our house in Pacific Palisades became a much sought after meeting place between East and West.

One of our first Russian guests in 1973 was Vladilen Letokhov, a highly productive physicist with an unlimited imagination. Few physicists have generously shared so

many new ideas with me as he: all work on laser isotope separation in the US, mine included, was indebted to discussions with him, multi-photon dissociation and laser photo-chemistry were other Letokhov ideas.

Eight years younger than I, stocky, a round face, thick, dark-framed glasses, and eloquent gestures, he spoke excellent English. I had met him at Basov's laboratory in 1969, when he was still a post-graduate student. Two years later his career took a steep up-turn with an appointment to head a department of the Institute of Spectroscopy of the Soviet Academy of Sciences in Troitsk near Moscow. Everybody attributed his meteoric rise to Basov's influence, which was, of course, the case. However, later I learned that he was married to the daughter of Dimitry Ustinov, Secretary of the Central Committee for Defense and Space (1965-1976), who funded his work for many years....

Barbara prepared an elegant buffet-supper in Letokhov's honor at which he flirted famously with the stunning Polish wife of a friend of ours - in Russian, a great and lively evening. On the following day I took him on a ride into the desert. Coming down the Seven-Level-Hill from Mt. San Jacinto into Palm Springs, we stopped to take a photograph of the vast desert view. Vladilen's film tore, and I suggested that he climb into the car's trunk to change it. He threw me an uncertain glance and climbed in. I closed the lid. When I let him out again he gave me a Russian hug, saying with audible relief that I was a truly reliable person, I could easily have let him vanish for good. This incident cemented an unusually friendship between us. He became the one rare Russian with whom I could discuss anything, science, politics, and his turbulent personal life.

If my friendship with and interest in Letokhov was primarily scientific, my relationship with Genya was a matter of the Soul—our common "Russian" Soul, of course. Genya, no prominent scientist, who moreover worked at a second-rate laboratory at the Lebedev, had the knack or luck to garner stipends repeatedly to work over long periods in the US and in France. Only after the breakdown of Perestroika did he tell me that his father had been a KGB-officer.... When Genya spent part of a year at the University of Washington in Seattle, we saw him often at our house. He craved Barbara's motherly ministrations and developed a great affection for teen-age Cornelius. One day when he was staying with us, Barbara was on tour, and I at work, Genya got hungry. I found him, his ample white body in a pair of the briefest swimming trunks, cooking himself a meal in the kitchen.... Barbara got never quite used to the flabby bodies of Russian men, the wrong diet, not enough exercise. But their faithful souls were also their great strength. I always felt that I could rely on Genya with my life. If I had fallen off one of the Moscow bridges into the wintry frozen Moskva, Genya would have jumped after me

to rescue me, notwithstanding that we would both have been dead on arrival. Zoya, his high-strung wife was an entirely different person, poetic, imaginative, sensitive, and emotionally brittle. Barbara, in 1980, became quite fond of her.

Zoya was a fanatic idealist. Driving at night back to Moscow with them from Genya's long wished-for visit to Rostov, Barbara and Zoya got embroiled in a searing argument on ethics East-West. I had to stop their exchange, because in another moment Zoya would have burnt Barbara into a little pile of white ashes with her moral fire.

Four years later I visited them again. Barbara had given me a slim volume for Zoya with poems by Lawrence Ferlinghetti, the communist-leaning Beat poet. Zoya leafed through the book and asked, "Why this poetry?" I explained to her that Barbara had selected it in memory of their fierce argument driving through the night from Rostov. Astonished Zoya said, "But I have lost my faith in Marxist ideology since then, our government has become a farce. They cheated us out of our Olympics in 1980. I have never forgiven them." I was baffled. This was the first time that someone had voiced the spiritual doubts sweeping the intelligentsia of the Soviet Union. Genya, smiling sheepishly, averted his eyes. In another five years they would very actively work for the Russian "Greens".

Between soulful Genya and intellectual Letokhov stood my oldest Russian friend Anatol Oraevsky, alas, for a long time I wasn't so sure, was he really my friend? However, over the years I discovered that his often sarcasstic jokes protected a soft core which was as personal and dedicated as Genya's. Two years ago, writing to his wife Irina at the time of his death, I thought about my 35 years of friendship with him. We had many up and downs caused by *my* doubts, he never wavered. I remember many endearing adventures with him and Irina, but not one serious conversation the like I had with other Russian colleagues. Most of his comments were what the Russians called "anecdotes," a kind of a ironic parable which often included an educational or moral aspect.

Today these incidents may not amount to much, but at the time they gave me a glimpse of not-so-obvious Russian attitudes: A large red banner was strung across a street which urged people to visit their *"agit punkt*", the local propaganda and recreation hall of the Party. On my question Anatol explained, "Oh, that is the town's chess club...." When at my hotel my badly needed raincoat was stolen I was quite upset. "Well," said Anatol unmoved, "that happens all the time in America. Somebody took it because of its foreign label. We have enough raincoats in this country." Or on my first arrival in Moscow, when he drove me around Red Square: "This is *Krasnaya Ploshad*. People have all kinds of mistaken associations with Red—*Krasnaya*, but to

Russians *krasnaya* is synonym with *krasiva*—beautiful. So this is 'Beautiful Square'...."

Occasionally I succeeded to conjure up a situation in which I topped him off. Irina and he took me to Vladimir and Suzdal. Anatol came from nearby Ivanovo, and had met her in Vladimir. Very dear they showed me her house and giggling like two children the bench on the former city wall where he had proposed to her. Irina stood with two feet on the ground, but that evening her passionate temperament took over. She spoke a little German, "I want to dance with both of you," she said when the band struck up after dinner at their favorite restaurant. "I can take on two men!" And we had to work hard to keep up with her. I liked her high spirits, and spent several memorable evenings at their apartment.

Anatol drove me to beautiful Suzdal. After visiting the old houses in town and the cathedral, he looked for a place to have lunch. The restaurant he had in mind was locked. I told him that I had found it very difficult to eat in such places by myself. "That is because you speak such miserable Russian," he quipped. "Nonsense," I replied, "words don't make any difference. The Russians consult pictures in their heads, when they see me: is this foreigner a good or a bad man? They never smile while this goes on, and if they cannot find one that fits, no service." He told me to stand back and knocked energetically at the door.

A young girl opened a mere crack, looked at me and said, "We serve only groups!" and slammed the door. "Tell her," I suggested, "that we are a group of two." Anatol shook his head, that was too sophisticated, and knocked again. The girl reappeared, but now she had barred the door with a heavy chain. Anatol explained that I was a VIP-guest of the Academy of Sciences, he wanted to talk to her supervisor. Still staring at me wide-eyed she shut the door again. After a long wait the hostess appeared and with many apologies let us in and seated us: "What would you like, a soup to start? We also have excellent pork today...."

"Let's order the same for both of us, on separate tickets." I suggested to Anatol. "I bet, she cannot multiply 12.48 Rubles by two." When our girl appeared with the bills, Anatol told her that he would pay them both, and sure enough, after pushing the little beads on her abacus back and forth for some time, she quoted him a much overcharged sum. I laughed. The girl held up her abacus for him to see and said in desperation. "But look at it, here is the total!" Eventually all was straightened out with the help of the manager. "You see," I told Anatol afterwards, "even their adding numbers is done in pictures. Why didn't you see she was right? You have taken matrix algebra! I have this problem every morning at the buffet in the hotel—only I always pay without making a fuss, my Russian is indeed too poor."—"They should all be given

pocket calculators," mumbled Anatol, shaking his head.

And there was Peter, who had approached me in Moscow in 1976 asking to help him find a place in the US for a one-year visiting fellowship. We got to know each other better soon afterwards at the KINO conference in Tbilisi. In 1977 he had been transferred to Basov's lab in Troitsk, and we saw each other only once during my Moscow visit. He wanted to discuss the final details of his stay in America. To be by ourselves he took me to a park off Leninsky Prospekt. This was not unusual, if one didn't want to be overheard by everybody, one went to a park, but because of my ignorance it became a strange meeting. Barbara had given me a small package wrapped in brown paper which contained material for a blouse for his wife. We were sitting in an empty teahouse when I pulled out the package and told him what it was. Peter very agitated, angrily refused to touch the package. "Put that package away!" He said nervously. Naturally I was offended. We got up and left the place. "Look," he said, "I cannot accept a gift from a foreigner. The woman behind the counter would have taken notice." "So what?" I burst out. "I am hardly a stranger to you!" "That is immaterial," he answered, "she can see you are a foreigner." And in a brooding mood continued, "In this country everybody watches everybody else, that's why we don't need any police as in your country. I may not be followed around, but you are being watched..." An incidence that could have been taken straight from Orwell's *1984*— which, of course, nobody in the SU had ever heard of. I took the parcel back home again.

In the Fall of 1977 Peter arrived at the lab of an academic friend of ours in Los Angeles. Peter was a most complicated and serious person. I could never quite figure out why. He had many family problems, his mother was near death at the time, his wife had left him with their only son, and his life at Basov's lab was plagued with problems, which nobody would explain to me. Barbara and I loved him dearly, maybe because of his earnestness. He became a frequent guest to our house.

Peter had been born in a small town on the Pacific Coast, where his father had been stationed as an officer of the Soviet Army. To find the place I had brought home a Russian *Atlas Mira* from the Aerospace library*,* a voluminous, excellent topographic world atlas. I love good maps and showed him the page of the Pacific provinces. He straightened out and said disturbed, "Where did you get this atlas from?" I told him where it came from, and he mumbled, "It could only have been obtained illegally, by the CIA." which was quite possible. He refused to point at his birth place....

A month later he visited us with a good camera, which I had never seen on him before. Without asking permission, he began photographing inside our house. This time I

balked and in no uncertain terms asked him not to take pictures, I would never do that in his house. He apologized and clumsily put the camera away, which he claimed a friend had lent him, most likely their intelligence man at the consulate.

This incident like so many of its kind was never discussed between us. A few days ago (December 2004) Peter sent me a note. He had read the above paragraph and for the first time cleared up the facts. The camera had been lent to him by an American friend at the lab he was staying at in Los Angeles. Friends in Moscow had warned him not to bring a camera to America—and as soon a he had one he got into trouble with me.... Such were the pitfalls and misunderstandings produced by secrecy, paranoia, and distrust, which were created on both sides by propaganda and the political tensions of the Cold War. Actually, the fact that several relationships between my Russian friends and me, despite my sarcasm and outspokenness existed at all and survived to this day is a minor miracle. Invariably they are resting on the limitless trust and loyalty of my Russian friends.

My relationship with Peter was especially complicated, partially because Barbara, Cornelius, and I truly loved him, partially because we hesitated to ask him personal questions, and last not least, because he was exceptionally quiet. To soften what I perceived as his stern view of the world, one glorious California day, I picked up him and Ivan, another Muscovite scientist, at their hot downtown dormitory and took them to the beach at Pirates' Cove in Malibu, one of our secluded beaches. In those innocent days it was still possible to lie nude in the sun there. When we came across Point Dume I saw that the beach was crowded with young people. There was no turning back, we climbed down to the beach.. "A strange beach!" said Ivan who stuttered badly. He had a traumatic past, his father had been one of the close collaborators of Stalin, who had him killed in an airplane crash when Ivan was still very young. I shrugged and said, "Look at these girls, how beautiful they are in the bright sunlight with the dark-blue sea in the background. Elsewhere America is a prudish place, this is an exception. Don't you take your clothes off in Russia?" "Only at night," stuttered Ivan and Peter made the memorable remark: "Every revolution is prudish in the beginning. It has taken you two-hundred years to get this far. Our revolution is only fifty years old. Give us some time to catch up!"

When we were in Moscow in 1980 Peter avoided us, but one morning he was suddenly waiting at a street corner outside our hotel. I approached him casually, and we took a walk through the back streets. "I have a question to ask you," he began. "How is it possible that the first preamble of your constitution guarantees everyone unlimited personal freedom? This must leave people in a vacuum of uncertainty. I watched your television for several months, nowhere have I seen as many unhappy faces." I still owe

him an explanation. Their first preamble guarantees everybody work—a condition which in no small measure contributed to the fall of Soviet Socialism. Time was too short on this morning for a lengthy philosophical discussion. He had married again. "Write to my first wife's address," he said, "we have remained good friends." His mother had died, and he had serious difficulties with Basov. He wouldn't elaborate. When we parted he said, "However, I wanted to tell you, that the day at Pirates' Cove has remained my most beautiful memory of California."

We did not hug each other. He had tears in his eyes. I did not see him again for another nine years. Every Christmas I wrote a carefully worded letter to his divorced wife's address. There was never an answer. Vitali, whom I questioned about Peter, would only say, that he made the mistake to lay himself on with Basov. He assured me that Peter had an excellent position in industry. Then, in 1986, there was a mysterious telephone call by an American who would not give his name. He gave me greetings from Peter whom he had met somewhere in Russia. Would I write to his son Yuri at his mother's address. I might even get an answer. Which did not happen until after 1989....

The most expansive of my friends was larged Xerox copies of illustrations of the alchemical work. Later during my last five professional years I hired Lissa, a young physics-major from Western Washington University to performed my optics experiments. Together we obtained many beautiful results until Jerry Gelbwachs, my jealous new boss, had my laser dismantled.—Flying-off with the help of a "Golden Parachute", I left Aerospace and retired in 1994.Nikolai Karlov. Always in a natty Western suit—by far the best-dressed Russian I knew—he was a senior co-worker of Prokhorov's. Nick spoke fluent idiomatic English and enjoyed it. Talking to him was always a relief after hours of searching for the right word with others.

My most memorable encounter with Nick took place in 1984 at Prokhorov's Institute. I visited him in his office in the company of Fred, a theoretical physicist from Los Alamos. Shortly after I had published the first laser-isotope-separation experiment (H from D)—which has never been repeated (such irreproducible results are rare)—Karlov had presented a similar experiment at a conference in Amsterdam. The scientific world was buzzing with rumors that both Livermore and Los Alamos were working on the question of how to separate uranium with a laser. I mention this to indicate the consternation which I could have provoked when, after shaking hands, I said to Nick, "Of course, all we want to know is how you separate uranium!" Fred winced and gave me a disturbed look. Nick leaned back in his swivel chair, folded his arms behind his head and with a broad laugh, mouthing every word, said., "You know, Rolf, we all would like to know how to do that. The last time I was in the US I called the guy in Los

Alamos who works on the problem and was told that he couldn't talk to me, because his research was classified. It will be my pleasure to show you our experiment. But the interesting fact, which I did find out, is that a husband-wife team works this problem in Los Alamos—and here too. Let me call Karlova, she did all the work."

While dialing he explained, "The apparatus has mostly been dismantled, but my wife will re-enact the experiment for you." He mentioned to Karlova in Russian who we were and asked her please to come up to his office.

A few minutes later, in walked a chubby woman in a white laboratory coat, her hair stuffed under a cotton cap. Nick introduced her with a grand gesture. She shook hands with us, not a smile, not a word. "Karlova doesn't speak English," said her husband, "I'll have to do the talking."

The three of us followed our mute guide three stories down into the basement, where she let us into a room next to Karlov's celebrated, tunable cw-CO_2-Laser. Karlova had suddenly disappeared, and Nick pointed at an antiquated optical table carrying a mirror on one end. "You see," he rowed with his arms, "this is the table on which the experiment was mounted. The laser beam entered from the room next door through a hole in the wall and was focused with this mirror downwards."

Karlova returned carrying a glass vial with a long funnel at the bottom and a large dish with a spout. She mounted the vial in a chemical stand attached to the table, and held the dish between her hands under the funnel into the imaginary laser beam. While Nick talked nonstop his silent wife very slowly, almost maniacally rotated the dish. "The solution dripped from the vial into the dish." said Nick. "Karlova is showing you, how she swished the liquid around in the dish, very slowly so it would not get disturbed. The laser beam produced a noticeable indentation on the surface of the liquid. That's where the reaction took place. The enriched liquid overflowed by way of the spout into a beaker which for simplicity sake she is not showing. The experiment took about half an hour, after which we analyzed the liquid in the beaker. It was enriched by a few but significant percent."

Fred rolled his eyes heavenwards. But I saw before my mind one of the illustrations from Jung's celebrated "Psychology and Alchemy" and understood at once: Here were the *Artifex and his Sorror Mystica* creating the modern *Homunculus* with the aid of a laser beam: the ultimate *sublimatio* of the *opus alchemicum.*

To this day I am sure they found the enrichment they had anticipated. Their combined psychic powers were so large that they could have obtained a much higher enrichment. However, as Jung showed, had they repeated the experiment many times—which they

did not—their combined suggestive energies would have ebbed away, and the enrichment would have been reduced to nil. Needless to say, nobody with a critical attitude could ever reproduce this result—they weren't believers....

Fred and I had a furious argument afterwards. He accused Nick of the most insipid obfuscation—while I returned home wiser and pasted the walls of my laboratory with enlarged Xerox copies of illustrations of the alchemical work. Later during my last five professional years I hired Lissa, a young physics-major from Western Washington University to performed my optics experiments. Together we obtained many beautiful results until Jerry Gelbwachs, my jealous new boss, had my laser dismantled.—Flying-off with the help of a "Golden Parachute", I left Aerospace and retired in 1994.Nikolai Karlov. Always in a natty Western suit—by far the best-dressed Russian I knew—he was a senior co-worker of Prokhorov's. Nick spoke fluent idiomatic English and enjoyed it. Talking to him was always a relief after hours of searching for the right word with others.

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Georgia 1980

Merab did not rest until he was able to offer me a guest-position at TBU (Tbilisi State University) teaching a course on high-power gas-lasers. He had to go to Moscow twice to secure the permission. At the Lasers '79 Conference he told me in confidence that his main intention was to show me Georgia. My teaching duty, four hours a week, would be arranged and coordinated with his in such a way that he could take me to all the places on my wish list and some more of his choice. Sophie was already working on Georgian art history. Barbara and Cornelius, who was fifteen at the time and in high school, were invited too. If I could afford it, I should come for nine months, a full school year.

I couldn't, Aerospace Corporation was not a university. I was not entiled to a sabbatical

year at half-pay, and the salary Merab would be able to offer, would not even cover our house payments. Finally, I didn't want to waste a year on a boon-doggle which offered me no practical scientific or professional benefit. Barbara and I agreed that this trip would be a unique experience for all of us and especially for Cornelius. We would take him out of school, and he would have to work by himself to keep abreast of his classes.

In the end Merab and I agreed on a two-month stay. I set out to put together a graduate-seminar on gas-lasers, as I found out no easy task with my limited teaching experience. My charmed boss at Aerospace once again made it all possible by offering to continue paying my salary. This time he was sure I would return.

In the very last moment world history interfered. The situation in Poland had deteriorated to the point where everyone was expecting the Red Army to invade the country, like it had Hungary, Czechoslovakia, and East Berlin. One Sunday over breakfast we had a family conference. I offered the final decision, whether to go or not, to Cornelius. Personally I felt that should a war break out in Eastern Europe, the Soviet Academy would take care of us and get us back home. I still see Cornelius before me, "Pappi," he said very seriously, "I would rather go to Georgia than stay here."

On September 24, 1980 we flew to Moscow where we spent a week. I ran the full circle of laboratories during the day and most nights we were invited by one of our friends.. Anatol and Irina gave a grand party at their place to which they had invited Basov, his wife, and several other old friends, among them Arkady, who gave Barbara a detailed introduction to contemporary Soviet literature. After dinner we danced...! On the weekend Genya made his old dream come true and took Zoya and the three of us to Zagorsk and Rostov.

We had been given a cozy but dusty two-room suite at the Academy Hotel and even had a few hours to ourselves. On a brilliant morning I took Cornelius and Barbara by Metro to Novodeviche. We also walked up the street from the hotel to the little "working" church I loved. There we unexpectedly found ourselves in the middle of a requiem mass. Very moving, an old man in full clothing on a simple stretcher surrounded by his weeping, praying, and singing family. Wile a boy swung a smoking censer, a long-bearded priest read the mass. And in Kolomenskoe we came upon twenty babies in the arms of their mothers being taken to be christened in the 17th-century cathedral.—All seen in the year of the Moscow Olympics 1980!

Basov's personal chauffeur, racing to beat the time, dropped us off at the airport—and then we spent six hours waiting for the flight to Tbilisi to leave. Our plane was not full

and to save money Aeroflot loaded us onto the next flight, as always running the gauntlet of a large unhappy crowd before everyone else was allowed to board...

In Tbilisi Sophiko stood at the gate with a bouquet of flowers for Barbara and Merab and Zhurab had brought two cars. This year Merab's favorite cassette was *"And the world is like an apple whirling silently in space, like the circles that you find in the windmills of your mind"*—sung by Frank Sinatra.... The University had rented a suite for us at the Hotel Adjara. Cornelius would sleep on the sofa-bed in the living room.

Coming from Moscow in those days, Tbilisi seemed, although still in the Soviet Union, on another planet, and it was not because people gesticulated more, or that it was warmer and sunnier, the ambiance was entirely different. Nowhere was this more strikingly evident than when visiting the apartments of friends in both places. In Moscow the stairwells and public areas of the apartment houses were at least taken care of occasionally, in Tbilisi they suffered from sordid socialist neglect, but the apartments that hid behind the drab doors were often bourgeois showpieces of expensive tastes: a black-tiled bathroom with all amenities including a bidet in the apartment of one of Sophiko's sisters, modern imported leather chairs at Nino's, the meticulously and tastefully appointed apartment of the architect Viktor Djorbenadze, or the ostentatious living-room of an actor of the Rustaveli Theater. True, Merab's apartment, where he lived with his old mother, was comfortable and modest, but he was then still a bachelor without a wife. This would change when he got married in 1999. My Moscow friends were all scientists, intellectuals who dressed and lived in deliberate socialist understatement, and the company they kept were modest people, who professed no extravagance or revolutionary ideas.

All of this was strikingly different in Tbilisi and no gathering was a greater surprise in 1980 than at Lalako's—an old lady-friend of the highly-eligible Merab—who one evening invited us to a most sumptuous dinner party.

Lalako lived on the fifth floor of a prefabricated Soviet high-rise building reserved for Georgian state artists. The elevator was dead, we had to climb up a raw-concrete stair well. All windows were broken, the dirt on the stairs was abysmal. We landed before a door with a miraculously shining brass handle. Merab rang the bell. The brass handle should have warned me that I was about to enter a totally new world.

Lalako herself opened and with effusive cries hugged Merab. This gave me time to look her over. Her well-rounded figure was squeezed into a tight panther-skin leotard with a deep décolleté. A small gold-charm on a thin chain hid in her generous cleavage. She greeted us with equal extravagance in perfect, colloquial English wrapping me in a hug clouded by French perfume.

When she finally released me, freeing the view, I noticed a grand-piano ostentatiously dominating a living room crowded with elegantly dressed people. On the lid of the piano lay an open Russian bible. Shelves with hard-bound books in three languages lined two walls. A fleshy Gudiashvili oil above a Biedermeier sofa. In an adjacent room, glimpsed through an open door, a table was laid, overloaded with Georgian delicacies.

I closed my eyes—was I in Beverly Hills? Confused, I was expecting that the entire fantasy would vanish in a flash, but the urgent voice of our hostess stirred me out of my fantasies.

"Merab told me you are a yogi," she was saying as she steered me into her bedroom. She sat on the edge of the huge bed and offered me a chair across from herself. "I am very interested in Buddhism, you must tell me all you know," she implored me urgently. "It is impossible in this country," she continued, "to get any reliable information apart from the hundred-year-old theosophical nonsense."

In her intensity she bent forward which afforded me an unexpected insight—the trinket between her voluminous breasts revealed itself as a Star of Judaism. Amazing, I thought looking more closely, the leotard, the piano, the bible, and a Jewish star between the hostess's breasts coexisting in the Socialist Soviet Union in the fifth year of the reign of Brezhnev.

I protested that she had elevated me to the status of a yogi just because Merab had seen me meditate with crossed legs before embarking on this journey. "I only tried to prepare myself for the surprises in store for me," I told her, "by concentrating on counting my breath. It is a simple Zen exercise. You should try it, just count your exhalations, one to six, and then over again for half an hour, and you emerge highly charged and completely rested at the same time. It has nothing to do with yogis."

Far from being discouraged, she leaned forward and asked with equal intensity, "But you are a physicist, do you believe in God?" I found it advisable to temporarily rescue myself to safer ground and countered with the evasive question, "Tell me, are you Jewish?"

Surprised, she sat up straight. "How do you guess? - Oh," following my eyes, "because of this?" She fished the pendant from inside her décolleté. "Yes." I smiled, recalling that the thought had already briefly crossed my mind earlier, when I had noticed the open bible on the piano under the Gudiashvili. But I found it more polite not to mention this merely circumstantial evidence.

"Oh," she continued, "this necklace was a gift from my ex-husband who was a Russian

Jew. He left me when I refused to leave Georgia and emigrate with him to America. He now lives in New York.—However, yes, I do come from an old Georgian Jewish family. You see, the Georgian Jews are indistinguishable from other Georgians. We call ourselves 'Mosaic Jews'. We were converted to Judaism during the first century. We belong here. It was inconceivable for me to leave Georgia. Now I provide for my and my son's livelihood by translating lousy American trash-novels into Russian and Georgian."

I listened with increasing fascination as she continued to tell the story of the Jewish communities of Mtskheta and Tbilisi. According to an old Georgian legend, Nino, the woman who brought Christianity to Georgia, had been sent by the Mtskheta Jews to Jerusalem to bring back the long-awaited gospel of the Messiah.

"You see," she explained, "we have little in common with Eastern European Jewry. Our heritage and customs are entirely different and not only because we follow a Sephardic ritual. We are probably closer to the Syrian Christians than to the Russian and Ukrainian Jews."

A young woman appeared in the door calling for Lalako. The woman gave me an inquisitive smile. I had only seen her for a second but my heart missed a beat. She had the black hair and the rare deep blue eyes which one only finds among the Georgia nobility. Electrified I whispered, "Who is she?"

Lalako got off the bed. "*Ekatarina*, the *Last Princess of Svaneti*," and with a mysterious smile she added, "She is a beauty, but you are much too old for her." I made a quick estimate. "She is about twenty-four, right?" "Twenty-eight," said my hostess, "she acts much younger. She is famous. Some day I will tell you more about her.—Excuse me a minute. Don't run away, you have not answered my question!" Lalako walked out of the room.

Puzzled, disregarding Lalako's admonition, I walked into the living room and was at once surrounded by several men and Ekatarina. In French, German, and English they tried to convince me of the need for an autonomous, free Georgia. I have jumped out of the frying pan into the fire, I thought. Politics and especially the explosive internal fractions were their problem, not for me to judge.

I said so and everyone nodded except Ekatarina, who in French, launched into a fiercely belligerent defense of ethnic independence and freedom from the from the Russian "occupation",of Georgia, as she put it. Everyone else fell into an embarrassed silence, but nobody contradicted her.

Ekatarina was just getting herself worked up over the presence of three tanks stationed behind the university for the express purpose of quelling any student unrest, when Lalako tactfully reappeared and called everyone *à table*.

Maybe I should stick to discussing God and Buddhism, I thought, at least they are harmless. Cornelius had been drawn into a game of chess by an older composer, and Barbara was discussing literature with a French professor from the University. Lalako placed me next to herself, Ekatarina across the table. Apparently Ekatarina's English was as limited as my French. On my left I found a young German-speaking woman who turned out to be a student of art history. I introduced myself, her name was Nino.

While talking to Nino I watched Ekatarina. Nino had all the characteristics that Ekatarina lacked, quiet, proud, a strong almost coarsely sculpted face, and a large, albeit sad, disappointed mouth. Her husband or lover must have recently left her, I thought, and engaged her in a discussion of Georgian architecture, frescoes, and the remote churches I so much wished to see. She knew them all and became very animated. "Have you seen the tresor of the museum?" she asked. "The gold-enamel icons there are among the best artifacts Georgia has to offer. Come to the Museum, I will take you around."

Ekatarina had caught enough snatches of our conversation to guess what Nino had been talking about and barged in, uninvited. "Yes, the gold treasures of the State Museum, if my great-grandfather had not spirited them out of the country to Paris in 1920, all of these precious pieces would be lost, sold, melted down, or simply been destroyed by the Russian Bolsheviks."

"Stalin finally brought them back to his homeland," Lalako commented wryly trying to defuse Ekatarina. What is wrong with this girl, I thought, is she on a suicide mission? Because surely the authorities could not let her set fire to the place, not even here, so far south of Moscow. I watched her while I advised Lalako to read C. G. Jung's late works, if she wanted to understand why we crave for God and Jesus Christ.

Ekatarina possessed the same small mouth with full red lips that Sophiko had. Compared to the bony, mountain face of Nino, Ekatarina's face was soft and so was her body. Maybe she was exceptionally sensuous, which Nino probably wasn't. I couldn't tell. Meanwhile Lalako was seriously doubting that C. G. Jung's or any other psychologist's theory could ever explain the mysteries of religious experiences. "What about Buddhism?" She finally asked again. "Buddhism is atheist in the true sense, don't you think so?" "Yes, of course," I conceded, to quiet her. "Certain kinds of Buddhism are."

The excellent food, better than any I had ever eaten in the Soviet Union, and the wine had robbed me of my intellectual resolve. Ekatarina's blue eyes were too distracting to deliver my favorite lecture on secret Tibetan religious practices. I teased Lalako by suggesting that the Tibetan Tantra employed a much more radical form of psychology than Freud, Jung, or any of their students had ever dared to contemplate.

It had become past midnight. Cornelius had won one game and was now losing another. Barbara was making arrangements with the French professor to visit the widow of David Kakabadze, the painter. Merab was completely absorbed in an intimate conversation with a seductive, blond Russian lady dressed in soft red. The party was slowly falling apart. Ekatarina left with her group of men. Nino had to be at work early in the morning.

Lalako stretched out lazily on the Sofa under the Gudiashvili. Finally I could look at it closely. A reclining nude surrounded by a murky, oriental harem. She had a pair of exaggerated breasts and nipples of a size that would have made Tom Wesselman envious. Incongruously this doll wore an old-fashioned Georgian head-scarf.

Lalako poured a cognac for me and herself. Smiling maliciously she began to gossip in a low voice "You were very attracted by our local firebrand, weren't you?" I shrugged, "Well, not really. Actually I find her hard to bear, but I cannot figure out why she fascinates me. Tell me, what is wrong with that girl? Why is she so aggressive and unhappy? You said she was 'the Last Princess of Svaneti'. What do you mean, have any of the Svani princes survived?"

"We call her that," said Lalako, sipping from her cognac. "The name derives from the title of a famous erotic novel which her Russian grandfather wrote—under a female *nom-de-plume* around 1912. Her grandmother was Varvara Dadeshkeliani, a true princess of Svaneti, who also was an ardent follower of Trotsky. She disappeared in the purges of 1936. A long, sad story. Don't carry any of this around, it could endanger her, but Ekatarina associates with a group of fiercely nationalist, Georgian dissidents. They are whom she gets her rhetoric from. One of their leaders, a certain Gamsakhurdia from Mingrelia, was recently arrested in Moscow. The rumors have it that he caved in and turned informer to save his skin. But the problem with Ekatarina is more delicate. What I am going to tell you is strictly Tbilisi gossip, but the mothers of young, pubescent boys are hiding their sons in the closets when she enters their houses.—She likes to fondle young boys...! Crazy, isn't she?"

Lalako shaking herself, giggled at this infantile idea. "Have another cognac." She said and filled my glass. "I told you, you are much too old for her!"

My God, I thought, be careful, Lalako will immediately carry whatever you say all over Tbilisi. I tried to divert the issue. "I have been interested in the history of the Dadeshkelianis from wild Svaneti. What was the true name of that writer of Russian pornography?"

"Eroticism!" lisped Lalako with a thin smile. "He wrote in French. His novel was published 1912 in Paris, but everybody read it in St. Petersburg and, of course in Georgia. It was a major scandal. His name was Vladimir Nomikoff. Vladimir was killed by roaming Svani bandits when he tried to return to Svaneti in 1918. His wife Tamara went mad and dedicated herself entirely to extremist politics, that was what finally cost her life. Ekatarina was still a child at the time. She was brought up by relatives."

I poured down my glass of cognac. Inquisitive, Lalako looked at me. "You are bound to get into real trouble, if you pursue this woman. Do be careful."

There really were three Soviet tanks stationed behind the University. Cornelius discovered them one day. I warned him to stay away, but Merab only waved his hand: "They are being used for a 'history course', at the University"

Cornelius also discovered dilapidated cages for animals a little farther, as if there had once been a zoo in this valley. Which led us to make up a tale of the Georgian Tiger who had been kept incarcerated by the Russians and had run away after an earthquake had broken down his cage. Told to Merab, he raised his eye-brows and said, "How did you guess? There used to be a tiger in that zoo, who one day broke out and vanished in the Garedji Desert. He was caught when he tried to cross the border to Azerbaijan."

Merab had promised to take Cornelius, who was deeply into 'Dungeons and Dragons', to Uplistsikhe, 'God's Castle', the ruins of a cave city, abandoned only 80 years ago. Our trip there became a long day. We briefly visited Gori, Stalin's birthplace, where we bought a kilo of pickled garlic(!) for a picnic at Ateni Sioni, a 9th-century church with beautiful frescoes. As we drove along the Kura valley in the afternoon the villages turned poorer and more desolate. One had been destroyed by an earthquake a few years earlier and was abandoned. A few miles farther a new village had been erected from prefabricated concrete plates, a series of gray, depressing Soviet apartment blocks.

The road climbed a low hill from where, on the opposite bank of the Kura, the Rock of Uplistsikhe first came into view, pock-marked by uncounted, man-made holes. In this bleak landscape a group of black-clad people, carrying the icon of a Saint came marching towards us. A funeral on the way to the cemetery: a *kolkhoz*-truck carrying the casket followed by a long procession of mourners. A man held a life-sized

photograph of the young dead man. The women were lamenting in shrill voices, tearing their hair. Sophie crossed herself. Merab sat in stony silence. I suppressed an urge to photograph the scene.

To reach Uplistsikhe we had to cross a swaying bridge, suspended from rusted cables, half its wooden planks were missing. Merab parked the car at the bridge, and we walked across. The rapidly flowing Kura sixty-feet below was visible through the gaps in its rotten planking. All the way I was pursued by a childhood dream of falling forever from just such a bridge, but never reaching the flood-swollen river on which entire trees, pieces of furniture, and dead cows were drifting towards the sea. Half-dizzy, I clutched Sophie's hand to lead her across to the other side. Cornelius and Barbara, whom Merab was helping, seemed less effected by old dreams.

As we reached the dead city, Sophiko looked back. The dark-clad figures of the funeral procession had reached the bridge. The corpse had been taken off the truck and like in a shadow-play, two men very slowly, gingerly pushed the stretcher with the corpse across the treacherous gaps. Sophiko shook herself: "*Sikvdili!*—Death. " she murmured, "How I hate death." Curious I asked, "Is death female or male in Georgian?" Looking the other way, she explained, "Grammatically the word is neuter like all Georgian nouns. But in our fairy tales death is an old, emaciated woman with spindly arms. A few poets see her as a beautiful, bare-footed, young woman who beguiles her victims. I always felt they had been influenced by some decadent French poetry."

For an hour the five of us clambered over the riddled hill, explored fragile tunnels, caves, rooms with cassette-ceilings hewn from the rock, and a half-collapsed church until it became too dark and dangerous for such pursuits. Merab had excused himself. Sophie sat next to Barbara and me on a wall watching the night descent and the fog rise from the river. Lights were springing up in the villages strewn throughout the dusk-blue hills. The Kura at our feet, reflecting the colors of the sky, had turned into silver, yellow, and pink ribbons meandering through the valley .

Suddenly a man materialized from the shadows. Dressed in a shepherd's coat, a Lenin-cap on his head, he gesticulated hyperactively. He spoke a very rapid Georgian which Sophie could barely understand. Apparently, he was offering his services to take us through the caves. I told him that we did not need his services. He produced a field-flask from his shoulder bag, threw his head back and laughing uproariously snapped his right index finger to his jugular vein.

We were getting increasingly frightened. Sophie grabbed my arm. I vaguely remembered having seen the man's gesture before, an invitation to get drunk. I told him in Russian that we were not interested in drinking. Unexpectedly the agitated man

sobered up and led us down an ancient drainage runnel to the road along the Kura.

"You will never forget me, young lady," he said to Sophie in Russian giving her a kiss. "My name is *Stalberi*." With a crazed laugh he vanished into the night.

Sophie, pale-faced, holding onto me, murmured with a shudder, "Did you understand what he said? His name was composed of Stalin and Beria, our two greatest nemeses—the Kiss of Death."

Still shaking, we began walking in the direction of the bridge when we got caught in the head lights of a car coming at us. Sophie screamed. It was Merab who had dared to drive the car across the suspension bridge....

The lights of Merab's car exposed the potholes in the miserable road in the pitch-dark night. To avoid the dangerous main highway he had chosen to drive along the Kura valley. There was nobody in sight, the villages were asleep.

Somewhere near Kaspi a ten-foot-high billboard appeared in the headlights. As we came closer it turned into one of those curious triple-icons which one occasionally encounters in Orthodox churches: Many narrow wood-slats mounted perpendicular to a background image, the slats carrying a second and third image on their front and back sides, which could only be seen from an angle.

It was Stalin who waved at us, resplendent in a general's uniform, as a young man, if seen from the left, and blessing children if viewed from the other side.

I wanted to take a photograph of this unusual icon of the infamous Georgian. But Merab would not let me. He doggedly pushed on into the night.

Left to my own thoughts, I recalled the night of Stalin's death in 1953. To pay for my university education I had been working in a Northern German salt-mine. I saw the rails again vanish into the gallery, and the glaring lights that illuminated our stark workplace. An excited older foreman had suddenly appeared from the dark shouting, "Stalin the greatest swine of all times is dead!" We stopped work for the remainder of that night-shift and listened to the old man's stories.—After the end of the War he had been forced to work five years as a POW-slave in the Vorkuta gold-mines.

"Merab," I asked, "what is a Tiger? Thirty years after his death Sophie still nearly faints, if some crazy drunk mentions his name. And now this bill-board icon. How does this all add up? I don't understand Stalin nor Georgia."

For a long time Merab was silent and then said with a testy voice, "A tiger is a proud

animal with a spotted skin who prowls the night and feeds on people.—Only the death of Ilia Chavchavadze did so much for our Georgian self-esteem as Stalin's. Stalin and especially his henchman Beria were feared in Georgia during their lifetime, too many Georgians vanished. But since Stalin's death he has, to the simple man in the street, become a symbol of our struggle against Russian oppression. A native son who made good.—Sophie's fears have to do with childhood memories... and you should not forget that what I have just told you could send me to prison. The Russians still occupy our land."

One day I wandered through town taking pictures of the stately old houses on the high-bank above the Kura. A gentleman in his sixties approached me who introduced himself in French as Viktor Djorbenadze, City Architect of Tbilisi. Wary of people whom I did not know, I brusquely told him in English that I did not speak French. He regretted that his English was too poor for a conversation—but he insisted that I was not English. He was right, I said, I was German. Where upon he changed to fluid German.... He explained that he was delighted to meet the rare foreigner who, to judge from what I had been photographing, was interested in architecture. Could he show me some of his buildings and hear what I thought of them? He pulled a pack of photos from his jacket. I took one look and was hooked. The buildings, a hotel in Oni, a cemetery chapel near town, were most exciting *architecture-brute*, the like I had never seen anywhere in the Soviet Union. Viktor was delighted. His great hero and model was Le Corbusier. He asked, "Do you know Ronchamp? I once had the good fortune to visit its chapel. Do you have a couple of hours? Let me take you to Mukhagdverdi, it's very close, near Mtskheta." He pointed at a *Niva*, a Russian Jeep, parked at the curb. "This is my car." My alarm bells rang again, but I did have a couple of hours before Barbara would get worried. The temptation was large, and I consented.

Viktor drove along the familiar highway east, and soon turned off onto a country road. The hill of Zedazeni appeared on the opposite bank of the Kura. Viktor stopped the car, crossed himself, and prayed a *Pater Noster*. He smiled at my surprised look. "I have to ask my clients for forgiveness. In my profession I walk on corpses. Over there is the old sanctuary of Zedazeni. You have never been there? One day I'll take you."

The road turned into a dirt track which ended on a large, tree-less hillside covered by graves. "This is a new cemetery for VIPs, high party members, war heroes, the like." On top of the hill stood the small, white chapel he had shown me in the photos.

We got out. The view from the hill across the Kura Valley and Mtskheta alone was worth the drive: The Royal Cathedral rising above the houses of the small town, behind it Djavari, the church of Nino on its hill. The sacred center of Georgia.

The indebtedness of Viktor's chapel on Ronchamp was unmistakable. It was much smaller, and hence its curved outside surfaces did not dominated the structure as in Ronchamp, nor did it have the largess of the roof of Le Corbusier's building, but there were two tower stumps to the west and two curved shells drew the visitor into the interior. The concrete was very rough and white-washed. Viktor lit another Bulgarian cigarette with the butt of his last one.

"Here you see the tribulations of a Soviet architect," said Viktor with a shrug. "The finish is 'as is', no western architect would leave his building like that, but I am proud of having successfully wrestled with the adversities of my environment. Look at this beam." He took me to the northern side, where a large I-beam struck out of the wall by a full meter. "This was the only long beam I could find. Since it is pre-stressed I couldn't cut it, so it sticks out. My great pride." I commented on the neglect of the building, peeling paint, cracks in the surfaces, cemetery trash. "I dislike new buildings," said Viktor lighting another cigarette. "Mine have to weather our difficult 'climate' for a while before I will acknowledge them as my own."

In the bare interior two floor-to-ceiling windows framed the view of Mtskheta. "My customers may in their lives have long discarded their religious inheritance," said Viktor as we climbed into his car, "but in death they all pass through my hands."

It had become October. A cold wind blew the yellow leaves of the plane-trees across the wet pavement of Chavchavadze Boulevard. We were waiting for Barbara on the second floor of the only tea house in Tbilisi. She finally appeared on the sidewalk below, despite her limited wardrobe elegantly dressed, defiant of the wind and cold, a picture I will not forget. We warmed her with a cup of tea. "Let's go to Alaverdi," said Merab. "The peasants from Kakheti and the shepherds from Pshavi are celebrating Alaverdoba, the yearly Saints-Day Fair, during this week."

Memories of my first drunken visit to Kakheti with Merab's students, the billowing clouds, the blue sky and the sun still lingered in my mind. This time the day was overcast and gray. We were nearly frozen long before we reached Alaverdi. Barbara maintains that she has never been so cold in her life. The heater in Merab's car was dead and could not be revived, and Sinatra's mellifluous voice *whirling the world* uncounted times *like an apple silently in space* was helpless to distract us from miserable reality....

The cathedral in the vineyards appeared surrounded by a chaos of cars, farm wagons, horses, and eating, drinking, and dancing people. A trio of a violin, a drum, and an accordion in an improvised shelter provided the music. Uncounted table cloths had been spread in the wind-shade of the wall, around which groups of men and women—

carefully separated—drank and ate from the abundance of the land. Every time we passed one of the "tables" I had to drink a glass of their dangerously fresh, effervescent wine. Merab made the toasts, but as the driver he was excused from drinking.... "If I drink another glass," I told him, "I will fall off the horse again like in Shuamta." He laughed at the memory and took us into the church.

There were no priests at Alaverdi in those days, the people had their own celebration in God's house, quietly praying or talking to friends whom they might not have seen for months. Nobody objected to our presence. Uncounted candles flickered in the dark. Waxed to the walls they left a band of black soot. It was overwhelmingly moving and solemn.

Cornelius had discovered an old man outside under the eaves of the roof burning crosses into the woolly foreheads of sheep, which the Pshavi shepherds dragged and shoved towards him. "He is a *'khevisberi'*," said Merab, "a 'mountain-monk' who sacrificially blesses the sheep and roosters, an old pre-Christian ritual." I suggested that he was a shaman, but Merab insisted, shamans only existed in Siberia. "Watch, what happens to the sheep!" he told Cornelius. The stubborn animal was dragged on resisting legs to the edge of the camp, had its throat cut, and in no time was hanging from a wagon, skinned and ready to be roasted. Meanwhile the women were plucking chickens which they cooked in big pots of boiling water.

We stayed overnight in a new Finnish tourist hotel in Telavi, tasteful contemporary furnishings, a great view across the valley—but no heat! The only warm place was paradoxically a wine cellar in the basement which we shared with a lively group of international physicists who were there for a conference...

For breakfast Merab ordered *khashi*, "To warm Barbara and counteract the wine from last night." He said with a twinkle in his eye. I knew what was coming, a warm clear broth made from sheep tripes in which swam knuckles and cartilages seasoned with mounds of raw garlic.... Barbara shook herself, Cornelius and I did our best.

We had to visit Shuamta, of course. The three churches lay hidden in deep fog, the view was nil—instead of a peasant with a horse, a singing group of student teachers surprised us. Their chaperon, a young man accompanied by his wife, was dressed in an authentic outfit from the end of the 19th century: spindly narrow breeches, a blue frock-coat, a watch-chain, and long, center-parted hair, a dashing poet.

The Rustaveli Theater was touring Edinburgh, Athens, and Spain. Therefore we could not see Shakespeare's *Richard III*, which had become *the* sensation after the *Caucasian Chalk Circle*. But Merab organized tickets for a lesser tragedy in which Tamara Dolidze,

a distant cousin of Sophiko's, played the main role: a distinguished Tbilisi notable had an affair with Tamara. The vicious town gossip and his scheming wife heated the scandal. At the end of the play Tamara hangs by a noose from the rafters of her apartment. Despite its bourgeois appearance, it was Medea all over again. Matriarchy—and Georgia looked more and more like an ancient matriarchy to me—does not kill the guilty man. By destroying his children (Medea) or committing suicide (Tamara), the woman sends him to his private hell—he dies of guilt pursued by the Furies of his own mind. Tamara's acting was superb.

After this exhausting performance Tamara invited us all to her apartment, where we found Genri, her husband—Brecht's *conférencier* in the *Chalk Circle*—tending a cast on his leg which he had broken in Athens. Employing three languages we discussed and joked with Genri about the international theater scene. "Ah, the Russians, they are not bad," said he, "but we have long surpassed Stanislavsky in Georgia. Besides Moscow theater cannot shed its ideological straight jacket and is still caught in "revolutionary" struggles. Theirs is nineteenth-century theater. Chekhov tops their list." He invited us to Gruzfilm Studios where he claimed all avant-garde Soviet films were being made.

At midnight Tamara emerged from the kitchen and served a late supper of Georgian delicacies....

Gruzfilm Studios turned out to be a vast factory spread over several blocks at the edge of town. Genri introduced us to a diminutive, painfully solicitous director. In an empty theater they screened two experimental films for us, neither of which was ever released, an amusing surrealist short, in which Genri clowned and danced with an animated double-bass and a full-length film about a young girl who came from the villages to Tbilisi: dreamlike black-and-white scenes of beguiling beauty in an undefined historical setting. The rites of passage of an innocent woman—who predictably ended tragically, after having been raped by her trusted uncle....

Every visitor to Georgia wants to see Svanetia, few get a chance. Upper Svanetia is an isolated mountain valley embedded, at an altitude of 2000-meter, into the main range of the western High-Caucasus. My old Baedeker described in minute detail the three-day horse-trek from the plains. In the 1930s the Russians blasted a road to Mestia, the largest village, but that did not break the intractability of the Swans—even during Soviet times they were exempt from military service. In-bred, rumored to be effusively hospitable, but fiercely suspicious of outsiders, the Svans and the tower villages they live in have remained the legendary symbol of a Free Georgia. As a foreigner one needed a Georgian-speaking guide in 1980, and today even that is insufficient, you cannot safely go there without being protected by an influential local Svan. They speak

a dialect which separated from mainstream Georgian over two millennia ago. Christianity arrived in the 8th or 9th century, and some of the oldest, least-known Georgian churches are in Svanetia, my main interest in the area.

To reach Mestia from Tbilisi required a strenuous, one-day car ride. I did not ask Merab to take us there, but as so often he read my dreams. At the end of November he arrived with three *propusks*, permits, and what was more important with coupons for gas, there existed no public gas stations on the way. He stowed three full jerry-cans in the trunk. His old car reeked of gasoline—and in those days he was still chain-smoking cigarettes—all windows were open, a flying bomb....

Late in the evening of that day, Merab wearily picked his way from Djvari up to Mestia, fallen rocks, tunnels, waterfalls pouring from overhangs, forming treacherous lakes in the road, which he had gingerly to ford. The Inguri river in its gorge raced a hundred meters below to our right. Thank God, it was not foggy or raining.

We spent the night in the "hotel" of the Georgian Alpine Club, where the only source of heat was the tea we brewed in our tooth-mugs with an immersion heater borrowed from Sophiko. The hotel buffet offered only Russian-style cold cuts and *pivo*, beer....

Next morning we set out on a white-knuckle drive on a dirt road across a low pass to Ipari where I hoped to see one of the old churches and its frescoes. Like in a fairy tale, high up in the clouds a magical village of many towers appeared for moments and vanished again. As we crossed the pass it began to rain and in Ipari the rain turned to snow.... The key to the church was kept by the school teacher who was in no mood to unlock it, he was teaching. Meanwhile we were besieged by a gang of children who sang derisive ditties and threw stones at the foreigners. Two locals peered from a nearby house, but vanished when Merab begged them to allow us to warm ourselves by their fire. So much for Svani hospitality.

With a heavy heart I persuaded Merab to turn back. I didn't want to be snowed-in in this unfriendly place. His car skidded and slipped up the rocky pass. We survived the night by heating lots of more tea.

We left for Tbilisi at sunrise. The sun threw a Corot-like rose-tint over white Mestia, whose towers rose black against the snow-covered hills and tin-roofs. And then Merab had the crazy idea that, before returning to the low-lands, we should at least take one look at Ushba, the double-peaked Caucasian Matterhorn,.

He turned off in Betcho, a village of a few houses populated, to Cornelius' delight, by funny little black pigs. Soon the road became impassable in a meadow stretching to

the foot of a meanwhile brilliantly lit snow-covered mountain face, famous Betcho Pass. Steep rocks vanished in the clouds on both sides. In the center of the valley a farmer drove a dozen black cows across the white expanse. Above this pastoral scene floated a thin layer of evanescent clouds barely veiling a deep blue sky and occasionally revealing tantalizing rock spires and icy mountain peaks. It was completely wind-still, yet, as we gazed at this stark beauty, we discovered that the cloud layer was in constant motion, vanishing and being recreated elsewhere, suspended on the thermal cells of an inversion above the valley. Below in the shadows, where we waited for Ushba to appear, it was bitterly cold, while the rising sun was warming the upper air regions. We watched this drama with frozen breaths for almost two hours—Ushba never showed its two peaks clearly enough for us to be sure. Eventually Barbara, who had no boots and had remained in the car, cpersuaded us to end our vigil, she was almost frozen. We left Svanetia, luckily Merab had fixed his heater.

"Cornelius," said Sophiko, who sat between Barbara and him in the back seat. "Let me test your vocabulary:" *titi?* finger, *dsaghli?* dog, *tskhali?* sheep, *mama?* father, *deda?* mother.... Every day Cornelius worked conscientiously on his Latin and Math, but that wasn't enough to keep his mind busy, so we had asked Sophiko to teach him Georgian —in German, of course. He carried his notebook on all trips on which Sophie accompanied us. They never got to the verbs and their complicated non-Indo-European conjugations. Therefore, Cornelius speaks a verbless Georgian, but he can fluently read and pronounce the beautiful Georgian letters.

Georgian is related to no other language. It is, like Basque and its matriarchal social structure, a proto-European relic, the oldest still spoken language in Europe. In the fourth century a monk invented a unique alphabet for Georgian, and by the 12th century Georgia had a flourishing literature. All of this explains the fierce struggle of Georgia to keep this national inheritance alive. During the 200-year Russian "occupation" of Georgia—the last Georgian King sold his kingdom in 1802 to the Russian Tsar in exchange for a comfortable retirement in St. Petersburg—Russian almost replaced Georgian as the first language. It was Ilia Chavchavadze who zealously fought for Georgian self-respect—and in 1907 paid with his life for it. Naturally, every educated person in Tbilisi spoke Russian, and notwithstanding their antipathy for Russia, the Georgian intelligentsia used Russian as their *lingua franca*.

We were on our way to Khintsvisi, a 13th-century church on the border to Imeretia, west of Tbilisi. It had been Sophiko's suggestion. I had only seen black-and-white photographs of its frescoes, which were, unique for Georgia, painted on a lapis-blue background. Merab had been reluctant to take us there, because the area was remote

and inhabited by restive non-Georgian tribes.

We found the Church of St. Nicholas on a low hill in rolling farm- and grass-land. It stood alone in the landscape, the nearest village several miles away. I don't remember where Merab found its caretaker, a middle-aged man with a Lenin-cap who brought his wife along to view the rare guests from the capital. It took Merab a lot of persuasion to calm the man's suspicion of the foreigner, who behind his back took many free-hand, flash-less pictures, which belong to my most precious photographs from Georgia.

The frescoes cover the entire inside walls of the classical building: a large angel in green, apparently not part of an annunciation, the apse crowded with saints and church fathers, and, highly cherished by all Georgians, in the left cross-nave Queen Tamara in the company of her father and second husband blessed by Christ. The surprise was a Last Supper over the entry door, unfortunately impossible to photograph with my equipment.

What I had not known of and had never seen pictured, was an even older church (before 1300) right next to the main church. Only the apse remained with an unusually large Madonna and child in the conch who defied all Byzantine norms in its eloquent beauty. Despite that it was unprotected and open to the elements, the fresco was in better condition than those in the main church. Well lit, it was easily photographed, and the caretaker raised no objections. We took leave most formally in admirable Merab-style from the custodian and his wife.

For a long time I had been searching for another church harboring a unique cycle of murals by Damiane from the late 14th century which rival the best contemporary paintings in the Byzantine churches of Istanbul. Unfortunately I got the name of the place, Ubisi, confused with Urbnissi where Merab drove us to on the way back. The church of Urbnissi, is a very early (5th - 6th century) Romanesque basilica, (in contrast to the Byzantine cruciform churches of Greek origin) with three parallel naves and no cross-nave, a rarity in Georgia. But it was completely neglected, and instead of frescoes housed a so-called Soviet "Scientific Atheism" exhibition: large photographs and accompanying Russian texts about the misdeeds of the Catholic Church and its Popes. Interesting, but hardly worth a detour. To cap it all off, we were pursued by two dirty urchins who pelted Merab's car with stones as we drove off.... Merab only found Ubisi in 1984 on another trip to Western Georgia.

With a mysterious face Merab, one night, collected our passports. He wouldn't say what he had in mind, and we had long learned not to ask, it was the surest way to spoil

his pleasure of making us a surprise gift. Next day he returned with a paper stuck to each passport, special permits to visit David Garedja! I gave him an overjoyed bear hug.

We set out very early, neither Merab nor Sophiko had ever been there. The long way south from the road to Kakheti was a mere track through empty steppe, no trees, a few houses, sheep corrals, not a soul. Frank Sinatra singing: *"And the world is like an apple whirling silently in space, like the circles that you find in the windmills of your mind...."*

Around noon we reached the low hills along the Azerbaijan border, a sign pointed to Udabno. The ruined buildings of the former Lavra, the center of Garedja's monastic community, were easy to find, a few towers, the shell of a late 17th-century building, and dozens of empty caves in the rocks above it. No frescoes. "The caves must be very close," said Merab confidently, but we climbed around for two hours. Cornelius discovered a cistern full of frogs and dozens of discarded snake skins, but no painted caves. Merab talked to some shepherds. They only spoke Azeri and were more interested in Sophiko's blond hair. We stopped searching and had a picnic among a herd of grazing cows. For desert Sophiko had brought a fancy *Tbilisi torti.* Merab went to find some life. A Georgian woman finally told him the way across a steep hill behind the Lavra.

It had become afternoon, and suddenly there were the caves hewn into the western wall of the hill: a collapsed church exposing frescoes of saints and horses, many individual cells, each painted with a deesis, Christ between John and Mary, a chapel its walls and ceiling covered with frescoes blackened by oxidation, and the celebrated refectory a story higher in the wall.

I had seen Rolf Schrade's black-and-white photographs which gave no idea of the freshness of the colors: light green, reds in all shades from pink to sienna, even a few spots of precious blue. David Garedji, the saint, who had come from Syria and had founded the community, two styliti sitting on columns, over a door, a large "Old-Testament Trinity" in green and dark brown—and the *piece sine qua non* a Last Supper covering an entire wall behind the stone benches and tables.

Christ in a blue toga on the left, John in his lap, behind him Jerusalem in green, taking up the center. The table, an oval rectangle loaded with breads and plates, a fish in a bowl. Sitting behind the table Christ's disciples without halos in a lively, densely crowded, very Georgian scene, each an individualized portrait. Where was Judas? In western frescoes he usually sits alone on a foot-stool in the foreground. Merab

counted, there were only 11 apostles. Who was Judas?

Merab and I got into a long discussion over Judas. Merab insisted that he was the only person who 'knew' that Jesus was The Christ. A most important figure of this night in Jerusalem, how could the painter have omitted him?

Although I was familiar with this Syrian-Gnostic interpretation of the New Testament, I had no explanation for Merab's last question.—Ten years later, when editing my photographs, Wachtang Djobadze, a Georgian archeologist and friend in California, pointed out that Judas, true to the scriptures, was sitting in the middle of the Apostles dunking his bread into a bowl. And then I discovered a twelfth disciple, an unfinished phantom standing in the background behind the others. Nobody seems ever to have noticed him before. Who was he? I still don't know....

As we drove back through the night Merab pushed a cassette into his stereo which flooded the car with music from a badly scratched tape: *Jesus Christ Superstar*.... Which is, of course, also built around the Gnostic view of the role of Judas.

Kiev

In 1980 KINO, the Conference on Coherent and Nonlinear Optics, met in Kiev and Merab had arranged for all of us to fly there for a week. Kiev is one of the most beautiful cities in the USSR, its old houses, the Esplanade with a view across the Dniepr, the Cathedral of Santa. Sophia, and the venerable Lavra amidst its golden chestnut trees, all had been most resplendently restored after WW II—by German POW slaves....

Cornelius and I burrowed through the grisly catacombs of the Percherskaya Lavra and carefully examined another "Religion and Scientific Atheism" exhibition in the Baroque refectory of the monastery. An assemblage of Lenin's Life: blessing the children, the sermon on the mount, feeding the five thousand, marching, marching in a sea of red flags—only His Passion was missing to make the analogy complete. The apotheosis was replaced by a mock-up cosmonaut blasting-off in a life-sized astro-rocket.... While this cycle demonstrated the religious underpinnings of Russian Communism—and the strength of Christian symbols—a second section attempted visually to expose the diabolical Church—i.e., in true pan-Slavic tradition, the corrupt *Western Roman* Church. It culminated in a sculpture in a glass case of a large bomb split open to show a diorama of the Roman Pope blessing Hitler and a collection of Nazi greats. On the pedestal of this contraption German troups were killing Russian women and children with bayonets.... To be just, the place was yawningly empty, we were the only visitors, closely followed by two female watchdogs.

Barbara had spent that morning exploring town on her own. When we met her at our comfortable, older hotel, she was still in shock. She had got herself into trouble photographing the women at the open market. Kiev was not Georgia, where the women would posture for the photographer, this was Slavic territory. The irate, paranoid market-women had "arrested" her and dragged her to the nearest police station. Barbara already saw her film confiscated or worse. Eventually a stern police officer told her to always ask permission before taking a picture, and besides would she stay with her tourist group and not snoop around on her own.

At breakfast we ran into an old acquaintance of mine, Edgar, the dubious scoundrel from East Berlin, who attached himself to us for a while. With him was Randolf from another East Berlin institute. A quiet, thoughtful, unhappy, much too open-minded man, whom I became very fond of in the years to come.

And then unexpectedly surfaced Elena. I had first met her at Nick Karlov's lab in 1977: in her forties, Russian—her husband was Armenian—reckless (certainly for Russia), well-read, and of an independent spirit, which did not miss its mark. Here she stood unannounced in front of our hotel-room door with a beautiful bouquet of dahlias—for Barbara.... I am not easily flustered, and Barbara knew all about her, but her sudden appearance caught me unprepared. Elena smiled. "I wanted to meet Rolf's wife!" she said without apology. The two women had much in common and quickly became friends. Henceforth Barbara explored Kiev with Elena, arm in arm....

Much of this went on without me. I had to present a paper and spent most of the day at the conference. There I had another encounter. I had invited Alexei M. Bonch-Bruevich, a senior scientist from the Vavilov Institute in Leningrad to Lasers '80, and never received a response. Suddenly the man stood before me—we all wore name tags—and in a low voice offered his apologies. He was greatly thankful for my invitation, but because of the status of the Vavilov Institute, he was unable to write or attend the conference. I had, of course, anticipated that, but had tried to provoke the Soviet establishment, after all, much of his work was in the open and internationally well-known. Now I felt guilty that I had selected this honest gentleman for my experiment. We separated quietly, and I never met him again.

Our delegated guide was Sergey Shevel a wide-awake, young physicist—the son of an Ukrainian foreign minister—with an attractive, high-strung French-speaking wife. They took us to the opera one night. However, the true test of our new friendship was a request by a local TV-station to film an interview in which Sergey and I were to discuss more than just scientific questions. Vitali offered to intervene, but I decided to simply ask the production manager to submit her questions in writing, and Sergey, who spoke

excellent English, and I tilted our answers to our liking. Some were deceptive, ideological questions, but Sergey steered us through the conversation with clever ease and a delicate use of Soviet terminology. After the interview we were followed by the camera walking among the flower beds of the Belvedere overlooking the Dniepr, gesticulating animatedly for visual effects: "International Friendship in Science!"

For many years we remained in close contact with Sergey and later with his daughter Oksana, who left the Ukraine in 1992 for Harvard, where she got a PhD and now is an Assistant Professor in Political Sciences. One of a-hand-full of exceptionally gifted young women whom we have been fortunate to know. Sergey died in 1998 or 99 like Friedrich and Anatol Oraevsky of a heart attack.

The Decline of an Empire

1980-1984

The events in Poland in 1980, the Moscow Olympics, and the increasingly mired war in Afghanistan were, not much noticed at the time, the beginning of the end of the Soviet Union. Of course, I would not have dared to predict what would finally happen, but I returned from Georgia with the conviction that, had the USSR militarily intervened in Poland, its ethnic and moral fabric would have come apart. A strong embarrassment about the suppression of the Prague Spring was widespread among the Soviet intelligentsia and not only in Georgia. In fact, there the strong anti-Russian resentments reduced the moral dilemma, this was a problem for the Center, not theirs. Their nationalist anti-Russian arrogance and not any ethical superiority immunized Georgians against the propaganda from Moscow. It even allowed them a critical view of the icons of Communism like Lenin, who in Russia has remained sacred until well after the collapse of the SU.

In Moscow the Olympics played a significant role in this disillusionment. To reduce any ideological pollution, Brezhnev's government had sent as many Muscovites out of town as possible. School children were sent to summer camps run by the Young Pioneers, their parents to state-unionized resorts on the Black Sea. Tickets for the games were strictly limited to politically trustworthy people, if not only to members of the Party. Friends in Moscow told me that their government had "destroyed *their* Olympics." A serious matter in a country of "believers".

I discussed this perceived loss of faith with several people in those years, who invariably agreed that it was of grave concern: Russians without a belief-system were dangerously disoriented. Loss of faith was an even more important factor in this

disorientation than lack of strong leadership. Many educated acquaintances in Russia still expressed that need by invoking Stalin: "Stalin may have been bad, but he told us what to think and where we were going." Or as Zoya, Genya's wife expressed it in 1984, "I have lost my belief in our government." And "government" meant more to her than what we refer to in such a context as "our administration", it included the entire "system", the Party, Marxist ideology, the hope for a Communist future.

And then there was the subversive effect of the war in Afghanistan, which in 1980 was just beginning. Feeling the smoldering discontent and the moral unhappiness among my Russian friends, I avoided this subject. If I mentioned it, I was immediately showered with defensive horror-stories about Vietnam. A sober rational discussion was impossible. By chance I was allowed a rare glimpse of the depth of this trauma in 1984. I had asked my Muscovite friend Natasha to take me to the "national" cemetery at Novodeviche. "You cannot go there," she said. "It is closed. People piled flowers and wreaths on the grave of an officer who died in Afghanistan, so the government installed guards at the gates." Sensing an opportunity to find out more, I asked whether she knew anyone who was or had been in Afghanistan. She became serious. "We don't know. When anyone is sent there he is forbidden to write home." Tears came to her eyes, "Often they *(oni)* don't even inform the family if someone dies in that war." She wouldn't elaborate, but I knew that her father was an officer in the Soviet Army.

In the US these were the boisterous Reagan years. He had been elected President in 1980 while we were in Tbilisi. We would have voted against him had we been in LA, but it was interesting to see that few of our friends in Tbilisi agreed with us, they were all wishing for Reagan to win. I cannot remember the reasons, but assume that they conceived Reagan as opposing Moscow....

Within three years paranoid Edward Teller had persuaded Reagan that he could build a nuclear-driven, desk-sized, space-based x-ray laser, and based on this fantasy Reagan proclaimed the Strategic Defense Initiative (SDI), aka "Star Wars" in 1983. The symbolic culmination of Reagan's Cold War. The cw-hydrogen-fluoride laser was taken out of our hands., transferred to TRW, and became one of the backbones of SDI (MIRACL). Ted Jacobs and George Emanuel went to TRW. I, quietly doubtful of the SDI program and the ability of the HF-laser to destroy any hardened missiles, stayed at Aerospace Corporation. From 1983 to 1989 the US government spent over $25 billion on SDI. Enough crumbs fell from the this rich table to support our small research program on chemical kinetics and my new laser-related projects at Aerospace. As it would soon turn out, the proof of principle experiments of the x-ray laser at Livermore were flawed by wishful thinking, not to say, intentionally falsified—a scientific hoax. The only survivor—to this very day—was the HF laser and its alternative, COIL, a cw-

laser based on chemically (O_2*)-pumped atomic-iodine. Neither has ever shot down much more than a model paper-airplane....

In 1983 I was asked to assess the possibility of destroying or damaging a surveillance satellite. Entirely based on open literature sources I concluded that, e.g., the small HF-laser in our laboratory could completely blind the sensor of such a satellite. The Air Force was very upset, immediately classified the document secret, and I was subsequently ordered to destroy all copies. The *only* secret document to my credit! What I had not been told was that the Soviets had, as a warning-shot, used a small laser to blind the Challenger space shuttle, setting off an official American protest. Soon afterwards, on a meeting in Moscow, Anatol Oraevsky punned: "All this political noise about the Soviet Union blinding US satellites. I tell you who did it: Aerospace Corporation!" When I told this to my lab director he guffawed: "So they know we have done such experiments!" This jocular exchange of information has for me always been an example of the intelligence operations of that time. Very rarely was I taken seriously or given clear-text information on Soviet progress —I didn't have the right clearance.

Today we know that the Soviet Union had a very ambitious military space-defense program which in its last phase also included lasers. But they had long before 1983 come to the conclusion that a laser anti-missile defense was an illusion, optically (atmospheric transmission problems, pointing and tracking), energetically (damage levels for a missile were far out of reach), and strategically (the weight of any useful laser systems was much too large for space deployment, and highly vulnerable on the ground). Reagan's SDI proponents (Livermore) believed they knew better.

Several other megalomaniac space defense alternatives, an electron-beam laser was the height of this folly, were proposed in the US, until in 1987 President Carter shut down the Space-War Program. There is no need to point out, that many additional factors contributed to the demise of Star Wars in the US, the most important was ironically the rapid *internal* disintegration of the Soviet Union after Cherenko's death (1985) and Gorbachëv's ascension. One crucial event contributing to the collapse of the Soviet military space effort was the death of Ustinov in 1984. He had been the driving force behind this program—and the father-in-law of my friend Vladilen Letokhov. Letokhov's lavish protection disappeared, and his wife suffered a mental breakdown and was confined to a mental institution....

My personal East-West travels became more difficult, but Lasers 'XX saved my Russian connections, and perversely the strained political climate resulted in an increased Soviet attendance.

I had invited Arkady from Basov's lab to Lasers '80. Afterwards, in December, he made

the rounds of US laboratories and eventually showed up in LA. Barbara was on tour in the Southwest with a group of Germans. I picked him up at a friend's house and had planned to take him to the beach. But in his usual distracted mood he asked to be taken to a shop where he could buy genuine blue jeans. I laughed and asked "for yourself?" "No," he replied irritated, "I actually need two pairs, for my wife and for my daughter." Second-guessing my raised eyebrows, he produced a piece of paper with an outline drawing of his wife's hour-glass figure, "In case you wonder how, here are her measurements." I took him to the nearest GAP.

That was not the end of our shopping spree. Driving down Wilshire Blvd. he fidgeted some more and asked embarrassed, whether I had an idea where he could find a cross. "What kind of cross?" I asked suppressing my sarcasm. "A gold pendant to be worn on a thin gold chain...." he said, adding quickly, "...for my daughter." I knew that among my friends Arkady was one of the few Party members. I couldn't hold off any longer: "First you buy two pairs of jeans and now a Christian cross, how does that rhyme with your carrying the priceless Card of the Party?" He winced. "Nowadays crosses are the latest fashion among young people in Moscow, and as far as my Card goes, I applied for that twenty years ago at a time of great enthusiasm for our country. Today I would be happier without its obligations...." I found him a cross at Macy's in Santa Monica. He wouldn't accept anything less than 14-carat gold and willingly paid a tidy sum for it. On our way to Pacific Palisades I asked him about his view of the Sakharov affair. "Oh, well, "he said, "it is an old Russian penchant to want to be a martyr. He is an excellent physicist, but I cannot get rid of the impression that, to atone for his having been involved in building the atomic bomb, he is seeking his doom...."

Arkady had never been to our house. We were alone, and he was visibly moved when we got there. "You know," he said, "we could be fellow countryman?" I was perplexed, his name was perfectly Russian. "My father died early in the war," he continued, "and my mother and I lived in a small village in Western Russia when the German army ran over us. All fields had been destroyed, and we were starving. It was then that a German officer picked us up. He had lost his entire family in an air-raid in Hamburg. I loved this kind man like my own father, whom I had hardly known. In the Winter of 1943, when the German army retreated he would have taken us with him to Germany, had my mother not refused. He provisioned us with enough food to survive and hid us in the woods. I still see our village burning in the snow. I was eight then...." Deeply moved, I knew of a similar story from the other side and guessed his mother's difficult decision, I asked for the German officer's fate. "I found out after the war," said Arkady, "that he was killed in the last month of the war."

I cooked us something to eat and after dinner Arkady returned to my question about

Sakharov. "His Jewish wife also plays a role in his activities on behalf of our dissidents. They are mostly Jewish. Our dissidents are a difficult problem." He got up and suddenly very agitated, walked back and forth in our living room. "You know Rolf," he stopped his pacing and unbearably tense said. "In order to see clearly we have to get rid of our dissidents and *Light-men*, Saints. They believe they can walk on water. Russia is a cold, dark country. Half the year it is night. We feel we are buried to our necks in a bottomless bog. Have you ever had a dream in which you could not move?" I nodded, and he continued. "This is my nightmare. The bog is cold and we cannot move. And then comes one of our Saintly Supermen walking across the swampland and proclaims: 'The future is red. I see the sun rise.' And we beg him to pull us up from this swamp, to let us see what only he can see. And then he shouts:"—involuntary tears streaming down Arkady's face— "'You are all together sinners, you aren't worth to be saved,'"—Atrkady made a chilling noise—"and laughing like this he steps on our shoulders with his boots and pushes us deeper into our morass.... We must rid ourselves of these false prophets."

Less ignominious and easier lovable were Tamriko and Jeffrey from Tbilisi. At the last minute in 1980, on our way to Tbilisi airport, Merab had asked us to take care of a young couple who was going to spend the next few years in Los Angeles. Jeffrey, whose mother was a Dadiani from Georgia, was Canadian, Tamriko the daughter of a well-known Tbilisi archeologist. Their relationship had been the gossip of Tbilisi. Jeffrey spoke fluently Georgian and had won a scholarship in anthropology at UCLA. Time on that morning was too short to get more details out of Merab, he hinted at some murky happening in which he, Tamri, and Jeff had been involved.

In late November the two arrived at our house by public transportation. They appeared like two wayward children who had run away from home. Tamriko, a striking beauty, dark hair and deep blue eyes, reminded me of Ekatarina at Lalako's party, even her Georgian nationalist vocabulary, which surfaced at every uncalled-for opportunity, was similar. Robbed of her Tbilisi environment she was restless, her attention-span was minutes. We tried to find her an occupation. UCLA would not take her as a student. She had an unfinished education in art history and insisted to be admitted to graduate school. A colleague and acquaintance of her father at UCLA, was unable to pave the way through connections, as she had complacently assumed. Inexperienced with American argot she heaped unprintable abuse on the good man, who during the following summer was nevertheless nice enough to lend them his beautiful house in Malibu. Finally someone organized a job for her at a gift shop in West LA. Obstinate as she was, she lasted two weeks, working as a salesgirl was decidedly below her standing.

Jeffrey by contrast was a lamb of a husband, which drove her to distraction. Thrown out of their bedroom, he would spend the night on the welcome mat in front of her door.... We tried our best to bring her to reason, and in happier moments, like on Christmas Eve at our house, she could beguile him—and, of course, me—with her charm. On the first warm Spring day I took them to our favorite beach, and on this ride the convoluted story that Merab had hinted at, came to light. I have listened to three versions of this romantic tale, from her, from Jeffrey, and finally in Leipzig from Merab, here is a collage.

One afternoon, shortly before their wedding in Tbilisi, a bored Tamriko had decided to go to the movies. On her way three young boys in a car, close friends of hers, had stopped and asked whether she wanted a ride. When she got into the car, they had turned around and had taken the road to Kakheti.—Considering the elaborate preparations required for this abduction, I have reasons to suspect that Tamriko had actually invited 17-year-old Otar, one of the trio, to meet her at the movies.—According to her version she nervously asked where they were going. They told her that they would take her to Shuamta, where they would marry her and Otar. Otar gave her a passionate speech, how much he loved her, and that she was a beautiful Georgian woman whom he would not let Jeffrey take to the West!

When Tamriko told me the story driving along the brilliant Pacific, I asked whether she had not been frightened and tried to stop the guys. "Oh, no," she said, "why should I? No Georgian has ever made me such a romantic proposal. Titillated, I waited how this drama would end." In my rear-view mirror I could see Jeffrey sitting next to her, he was smiling sheepishly.

Years later, Natia, another young Georgian woman, after having read my embroidered version of this tale in "Konrad and Alexandra", took me to task: I had judged Alexandra's abductor much too harshly, this kind of adolescent thing happened all the time,—which threw new light on my romantic Georgians....

The three boys drove Tamriko to Shuamta, performed an impromptu wedding-rite, and deposited the couple at a hotel in Akhmeta, where the two spent the night—a scene I spared Alexandra. Neither did Tamriko call Jeffrey or her parents. Mystified by her disappearance, a worried Jeffrey called Merab. Joined by Kakha, Tamriko's older brother, they went to the police, who told them that nothing could be done, only her father could post a warrant for his missing daughter. Merab told me that her father, obstinately opposed to Jeffrey's and Tamriko's marriage, had indicated that, if Tamriko wanted to, he would bless her liaison with Otar.... Eventually Otar's sister had leaked the whereabouts of the two, and Merab had driven to Akhmeta and retrieved Tamriko.

At a later opportunity, when Jeffrey was not present, I asked Tamri what had happened in Akhmeta. "Nothing," she said. "Hand-in hand we lay next to each other in that bed.... The most romantic night of my life!"

Jeff and she got married in a civil ceremony before a registrar with Kakha and Merab as witnesses. Her father refused to be present. She still needed an exit passport to leave the Soviet Union. The secretary at the foreign office gave Jeffrey, speaking Russian, the same argument as Otar had, she was a Georgian woman whom they wouldn't allow to leave with a foreigner. In fluent Georgian Jeffrey objected that she was his wife, he had to issue her a passport. The baffled official admitted that in that case, she could pick it up in two days. "I didn't know you spoke Georgian!" he told Jeffrey.

For two years the two were part of our family. We shared Christmas with them and weathered a strenuous visit of her dear but crazy mother the following summer—Tamri and her mother dying of mirth playing tennis in Malibu and an hour later screaming abuse at each other—took them to the Renaissance Fair—Jeffrey dressed as a woman—and at Orthodox Easter we brought her a blessed bread and a lit candle from the Greek midnight service.... Many times Barbara had to mediate between them when their rocky relationship threatened to come apart in the fireworks of a furious scene precipitated by Tamri. We had many hopelessly agonizing, but hardly dull moments with them, and we grew very fond of the two. Eventually Jeffrey and she moved to Toronto, where she entered a Ph.D. program in philosophy. Jeffrey, to make ends meet, gave up his academic career, turned into a computer exporter, and moved to Moscow. After a long separation they finally got divorced in 1992, when Jeffrey intended to marry the Russian business woman he had lived with in Moscow. We lost track of Jeffrey, but Tamriko will continue to reappear in these pages.

East Berlin and "Our GDR", 1981

At Lasers '80 Edgar finally succeeded in luring me to a conference in Leipzig, GDR. I went with great misgivings, but Merab and Anatol would be there, and that decided the matter. Edgar had suggested we meet in East Berlin. I could cross the border at Friedrich-Strasse as a regular tourist on a day-visa. He would get the necessary visa extension, and we would take the train together to Leipzig. "Meet me at the cinema across the street from the Friedrich-Strasse station," he wrote. A dubious arrangement.

I was very apprehensive and imagined all kinds of sinister possibilities. Going through the inter-zone control in the basement of Friedrich-Strasse was a humiliating experience for one who spoke German. Alone the repulsive Saxonian snarl of the

haughty *Volkspolizisten,* the people's policemen would have been enough to send me back. After an hour of waiting in line, I was released into "Unsere DDR", Our German Democratic Republic. It rained, Friedrichstrasse was empty, the *Kino*, where I was supposed to meet Edgar, straight across. What if this was a trap? My presence was semi-legal. Nervously I hid in a corner and watched the cinema from afar. For an hour nobody showed up whom I could have suspected or recognized.

Finally Edgar did appear and jovially greeted me, "Welcome to your Fatherland! Our train to Leipzig leaves in an hour. Let's have a bite." He took me to a hot-dog stand, and I wolfed-down a bland Thüringer sausage. "What about my visa?" I asked. Edgar tried to calm me. It was true, the visa was only good for Berlin, but I would travel in his company, and he would "regulate" the problem in Leipzig. He paid for the train tickets, and we found seats in an already crowded compartment. I guess I lost my apprehension when Edgar went to the restroom. Suddenly the people in the compartment woke up and plowed me with questions. Where was I from? America!? But I spoke excellent German! When had I gone to America? Where were we going? The moment Edgar reappeared everybody shut up again and silently looked the other way.... They could tell what I had always suspected, Edgar was an official scoundrel. For years thereafter, I wanted to tell him this story, but refrained. He also was *ein armer Schlucker*, a poor, second-rate schlock with a bitchy wife and an autistic child, as he told me on that journey. Meanwhile I was stuck with him.

In Leipzig he took me to the *Amt der Volkspolizei*, the Office of the People's Police. I kept my mouth shut as a stocky, female *Vopo* officer dressed down my guide and protector—for all she knew, I was an American unable to understand German. "Ah," said the woman. "*Die Herren* from the Academy think they can do what they like. Why haven't you applied for a visa for this gentleman, as you know you are supposed to?" With a red face Edgar handed me the stamped piece of paper mumbling in English, "The things one has to take from these women!" "Yes," I finished his sentence, out of hearing of the woman, "the sad Russification of your Fatherland and mine!"

They had booked me in a streamlined, Japanese-built hotel which was as empty as it was immaculate, excellent service and a plush Japanese restaurant, which at other times catered to the customers of the annual *International Leipziger Messe*, the fair that Goethe had already described. Only one minor circumstance reminded me that I was not in Hong Kong or San Francisco, a German guard at the door kept all local citizens out, like in Moscow, only here I could tell that he was, despite his civilian garb, a *Stasi,* a member of the secret police.

Leipzig, the international showcase of the GDR, had been authentically restored with

the help of a Polish company who specialized in the reconstruction of historical buildings all over Europe. The old center around the *Markt* and the new *Gewandthaus* were beautifully taken care of. That was not the case in Dresden, where I went on a bus excursion organized by the conference. Here all the misery of our divided fatherland overcame me with great force. Dresden, before the catastrophic Allied air-raid in 1945, had been one of the most beautiful cities of Germany. It looked as if the raid had taken place ten, not thirty-seven years ago. The conference tour took us to the neglected *Zwinger,* the Rococo-Gallery housing the priceless collection of paintings of the Saxonian Kings. In order to reach the paintings one had first to take in a photo show presenting the Soviet Army as their savior in 1945. After that I went on my own nationalist trip: to pay homage to the thousands of people who had taken refuge by the river on that night and been mowed down by Allied machine guns, and to a circumambulation of the blackened stump of the *Frauenkirche*.... nothing had been done in 36 years to these ruins, they were kept as a reminder of "American cultural brutality"..... At a self-service restaurant for lunch I was reprimanded by a soldierly woman: *"Würde der ausländische Herr erst ein Tablett holen, bevor er sich an der Kasse einreiht!"*—would the foreign gentleman first get a tray before he lines up at the cashier's. My German was as good as hers....

I was happy to meet Anatol and Merab, they understood my problems and surprisingly, for reasons of their own, sympathized with my depressing view of the GDR. Merab, on a long walk, filled me in on all the latest gossip from Tbilisi. At night he invited me to a Gia Kancheli concert (4th Symphony?) at the *Gewandthaus* conducted by Kurt Masur, who would in 1988 become one of the most courageous defenders of freedom in East Germany.

Max Schubert, an older colleague from Jena, drove me to this small but famous university town. After a visit to his laboratory he invited me to a noon meal at his place: quietly formal in the best German tradition, old Dresden china, inherited silver table-ware, a starched white cloth on a period table, all defying Socialism. We discussed contemporary literature. I still own a present of his, a copy of *"Kindheitsmuster"* by the eclectic Christa Wolf. The literary diary of a return to the city of her lost childhood in *Landsberg an der Warthe* (now Poland) which moved me much.

At night Schubert and I met with Bernd Wilhelmi at the 400-year old *Ratskeller* over cold cuts and a bottle of wine. Wilhelmi, seven years younger than I, was an interesting man. A good physicist, smooth, alert, sharp, and ambitious, he had arranged himself with the officials of the GRD better than anyone I knew. At the time he had risen to the position of Rector of Jena University, and the rumors had it that he would be the next President of the Academy of Sciences of the GDR. History intervened, and after 1989

he was pushed aside for several years. Since then he has formed his own optical company. Few influential people of the former GDR were able to make this transition as well as he did. Because he was a scientist he may never have been a member of the SED, the reigning *Sozialistische Einheitspartei Deutschlands*. In the eighties I found him open-minded, and clear-headed enough to take my occasional sarcasm with humor, which Schubert, probably for fear of losing his position, had not. In retrospect I see that I was far less charitable with my East-German colleagues on this visit than with my Russian friends: A result of the schizophrenia which arose whenever I spoke German—as a consequence I made no lasting friends on this visit.

The only hanger-on remained Edgar, whom I would have gladly shed. Somehow with his last thread of German integrity he must have seen a potential "savior" in me from his miserably messed-up life. However that may have been, he continued writing me sentimental letters long after the GDR had died, and he had been dumped by the Academy and most of his acquaintances.

For the time being I remained stuck with him. He escorted me back to Berlin, got me into a fancy East-Berlin hotel reserved for Western tourists, took me out for a candle-light dinner, and called me daily—which was, of course, his officially assigned job. One night I managed to escape and meet with Randolf Fischer in a typical *Weinlokal,* without Edgar. Randolf had brought his wife, his two semi-adult daughters, and as a surprise a close Muscovite friend of theirs, the sixtyish wife of a Russian Academician. I don't remember how— my mood was not sanguine, and Randolf spoke fluently Russian —we got into a bilingual political discussion on Russia, East-West relations, and the GDR, which ended less than cheerful. The topic was, how one could improve the active social and political participation of people here and there. The Lady from Moscow complained bitterly that in the USSR everybody only asked for state hand-outs, demanding *Daite! Daite!,* give, give without offering anything in return. I argued that the state should give its citizen more individual freedom and in exchange burden them with more responsibility, political and otherwise. Randolf translated, and the Moscow lady started to cry: This would be dangerous, nobody would know what to do with this freedom, and then she slipped into a tearful call for the return of Stalin's iron fist. How could she dare voice such a thought, I injected belligerently, in this city which was still trying to recover from the unfortunate division perpetrated by this infamous man?.... Randolf had to escort the distressed woman outside, and the evening came to an abrupt end. Randolf understood, and we buried the subject at another meeting in the US, but this unfortunate éclat made the rounds in Moscow, and her husband reproached me for my insensitivity at an opportune moment at his laboratory....

Stresa, Italy 1982

In June 1982 I met Sherwin Animoto, my closest collaborator at Aerospace, in Munich. Our papers had been accepted at a conference in Stresa, Italy, and I had offered to take Sherwin on a sentimental journey through Southern Germany, Switzerland, and Northern Italy. He would retain the rental car and explore Tuscany and Umbria by himself, after I had flown home.

We stopped at two of the most beautiful of my beloved Baroque churches, first *the Wies*, then *Ottobeuren* and finally stayed overnight in Constance. Sherwin was slightly bewildered by the opulence of this variety of Christianity—he had been brought up a *sansei* in Hawaii as a Japanese Buddhist—but he quickly took to German eating habits: Not only did we have to finish a full noon-meal—*Kalbsnierenbraten mit Klössen und Blaukraut*—but we also had to stop in the afternoon at a *Konditorei* to enjoy *Kaffee und Kuchen*, a big piece of sumptuous *Torte*. In the following two days I lured him to the Reichenau and across half of Switzerland: along the Zürich See via Rapperswil to Zug, where we spent the afternoon with Heinrich, a German-born Swiss-bear of a man and colleague of ours. On the third day we crossed the mountains twice across the Julier Pass to St. Moritz and from there across the Maloia. Swinging back and forth between Switzerland and Italy three times, past Chiavenna, along Lake Como, Lugano, and Locarno we finally ended in Stresa on Lago Maggiore. A magnificent tour.

Stresa and the conference were equally entertaining, a folklore conference banquet on Isola Madre and an excursion to the pleasure castle of the Boromini on Isola Bella. But Sherwin was missing his German *Kaffe und Kuchen*, *gelato con panna* became their substitute....

This was were I made the acquaintance of Yuri, the most brazenly independent Soviet citizen I had yet come across. He presented exciting work at the conference, an explosively driven magneto-gasdynamic-generator (EMGG). In an EMGG (aka EMHG, a magneto-hydrodynamic-generator) a shaped charge of explosives drives a gas seeded with sodium vapor at supersonic speeds down a shock-tube placed into a strong permanent magnetic field. The field pushes the metal ions sideways, where their charge is collected by electrodes embedded in the sidewalls of the shock-tube. It is possible to produce electric pulses of many Mega-Joules with such a device. EMGGs had been investigated in the US decades earlier, but had been abandoned because of technical problems. Needless to say, such devices had exclusively military applications. Yuri claimed great success, but his paper was so vague that the few experts at the conference, all Americans, shrugged it off. Either this work was a poor dilettante's imitation of classified research, or more likely it was make-believe. Having seen other

obscure Russian papers, I felt that it was probably for real, the author just couldn't write a clear, rational description of his work.

The work interested me as a possible way to drive a laser in space, and I took Yuri aside. Sure enough, Yuri confessed that this was his ultimate intention, but then something very strange happened, he began to complain about the short-sighted authorities in the SU. Soon he blamed it all on the senility of Brezhnev and the stupidity of his administration. It was time Brezhnev died and a new system took over. He was not specific what that should be.

This kind of discussion had never happened to me. Curious, I asked him some personal questions. He was a full professor at a technical school in Moscow, an old institution closed to foreigners. His research was conducted at the Institute of High Temperatures of the Soviet Academy of Sciences known for its MHG work. Where was he from? He flexed his arm muscles and looking me fiercely in the eyes said, "I come from the Crimean, can't you see, I am a Krim-Cossack." My God I thought, was he crazy, how long would he last in the SU? But he really didn't seem crazy only wildly willful, and he had already survived an unreasonably long time.

A few days later at the conference dinner he invited me to the Soviet table. Besides him I didn't know any of the others, but they all knew me as the organizer of Lasers 'XX. We were served excellent Northern-Italian food and a good local wine. I don't know what got to my head—probably the personal recognition given me, and the devil who wanted to find out more about Yuri—I proposed a toast to Brezhnev, to his long life etc. And Yuri refused obstinately to drink to his Head-of-State—before all the other Soviet citizen, who sat stone-faced around the table. Embarrassed, I apologized and lowered my glass amid icy silence. Rethinking this situation today, I suspect that most of the others, one was a young Ukrainian physicist from Tbilisi, were probably agreeing with Yuri, nobody objected to him or sided with me. Brezhnev had, after a first stroke, become, compared to Lenin and Stalin in their mausoleums, an unholy relic. A few months later he would be dead. Still, Yuri's performance was an audacious, unheard-of affront to the Soviet system.

I invited Yuri to Lasers '83. He arrived very restless, and demanded to go to a conference in Hawaii and visit Livermore. I called the State Department for instructions, Hawaii was ok, but Livermore was out of the question. Yuri hinted that he was perfectly able to make arrangements by himself, he had enough money that was no problem. Recalling the debacle with the Estonian Academician, I made him promise not to do anything rash as long as I could be held responsible for him. I got him a visa extension for Hawaii and flew home relieved to be rid of this headache.

A week later I got an exasperated call from the State Department, Yuri had disappeared, where was he? I smiled to myself and pointed out that he was no longer in my care, they should contact the Hawaiian conference organizers. A few hours later State called back. Yuri had booked two flights, one to New York and another to San Francisco—"to evade being tracked". Well, I told them, I had informed them that he was intent to get into Livermore, they better act quickly. The CIA waited for him at San Francisco airport, shipped him under guard to J. F. Kennedy and delivered him into the hands of an officer of the Soviet Embassy, who sent him home on the first Aeroflot flight. I thought that this would be the end of Yuri . Not so, a year later I found him lively as ever in Moscow. We never discussed his escapade. From the bottom of my heart I wished him luck, the Soviet Union badly needed more people like him.

Appropriately, for Sherwin and me this Italian conference concluded with a performance straight from the *commedia del'arte*. Among the participants I had discovered my old friend Grazina, the Kashubian Sphinx who had helped me save the foreign minister of Solidarity from self-immolation. When I gave her the accustomed hug, she said with an enigmatic smile, "Rolf, I so much want to see Venice...." "Well," I told her, "you may be luckier than you deserve," and introduced her to Sherwin. As I had quietly guessed, the two liked each other. Sherwin's relaxed ways were like those of the Polish men she associated with, and his unaggressive charm suited her just fine. She wasn't looking for an affair, she really wanted to fulfill herself an old dream by seeing Venice. Sherwin invited her to join him for a few days. The three of us left Stresa in Sherwin's car, explored a smog-choked Milano for an afternoon and were forced to spend the night in a highwaymen's-dive of a hotel in Bergamo, the only cheap place we could find. Grazina complained of being scared alone by herself. But when I laughed and told her that she would always be welcome to seek refuge with us, the Sphinx only smiled and audibly barricaded her door from the inside....

I saw them off next morning before I flew back home.

Brezhnev's death in November 1982 set off a three-year game of Russian roulette at the highest levels, probably for the first time in Russian history—without revolvers—one after the other its participants died of heart attacks. My Russian friends breathlessly watched the frantic changes of governments in utter confusion.

From the secret bargaining behind the closed doors of the Kremlin Andropov emerged as the new General Secretary of the Party. He was known as the recalcitrant former head of the KGB. What would he do to stem the subterranean unrest among the intelligentsia? Would he imprison the Yuris, who reared their heads under cover of the Academy demanding a new system? To everyone's surprise he tried some half-hearted

reforms, but died in February 1984 before he could make any lasting changes. The ascent of the colorless party-bureaucrat Cherenko, whom nobody knew anything about, only increased the bewilderment. When I arrived in Moscow in June 1984 the Soviet Union struck me as a corpse. A smell of decay hung over the leaderless country, and my disoriented friends either ducked or recklessly pursued their own little agendas.

An Interlude: China 1983

In 1982 I was offered an invitation to a laser conference in Guanzhou and to teach a course at an Institute of the Academia Sinica in Beijing. China had not been on my wish list, but I convinced myself that I owed it to my intellectual education to accept the invitation and have a first-hand look at this just opening country. In the back of my mind loomed the old dream of reaching Tibet, which had lured me to the US in 1956.

I lunged into a year of intensive preparations, constructed a synchronological table of history from the Chinese point of view (paralleling China, Central Asia, and Europe), collected information on Chinese art and architecture, studied all maps I could find, and even took private Chinese lessons with the wife of a Chinese anthropologist at UCLA. At that time there didn't even exist a portable English-Chinese dictionary—so I made my own...

My curiosity was motivated by my experiences in the Soviet Union. How did Russian Marxism differ from the Chinese version, who in their history had rejected all spiritual-ideological systems again and again? Much preoccupied with the visual mode of interaction between people in Russia, I wondered how people who wrote in picture-ideograms saw the world. And buoyed by my success in traveling in the Soviet Union with the help of the Soviet Academy, I was convinced I could pull the same trick on the Academia Sinica and see the Buddhist frescoes of Gansu and Xinjiang and maybe even Tibet.

Eventually I spent seven weeks in China, five traveling on my own by train, airplane, bus, and bicycle through Western China. The Academia Sinica refused adamantly to give me any support in exchange for my week-long lectures on gas-lasers except by buying me an air ticket from Beijing to Lanzhou, Gansu. This was my first great disappointment. The other was the contemptuous handling of my lectures in front of a highly ignorant group of engineers from a military laser laboratory. Their director expected me to discuss the details of our work in full disregard of my government's restrictions: I was even derisively called a "imperial capitalist" at one time when I refused to answer undisguised, prying questions.

However, I got some of my curiosities answered by a few scientists who had obtained their education in the US. My most urgent question about the relationship between characters and Chinese thinking puzzled my acquaintances. Only foreigners had the strange idea that characters were ideograms. 2500 years ago they might have been oracular signs, but no Chinese could see the composite images by which I had memorized their characters. And their thinking, as I found out on my lonely trip, was anything but picture-based. They even could multiply on an abacus, if they needed one! Visual beauty had no meaning whatsoever to anyone but a few intellectuals: Words were everything. Calligraphic poems on a monochrome scroll-painting were the height of artistic achievement.

I found no religious passion beyond the most primitive superstitions, and body language was, at least to this foreigner, imperceptible. Confucius and overpopulation had long done away with all openly expressed emotions.

A senior scientist at an institute in Dalian (before 1950 the Russian Darien aka Port Arthur) answered my question whether China was Marxist with a condescending laugh. What did I mean by Marxism? There existed less than five people in the PRC who knew what Marxism was. "Leave us alone with your isms," he said. "Buddhism, Christianism, Socialism, Communism are all imports from the West that don't work, and we have and will discard them. You know what China did to Buddhism, don't you? No, I don't mean that the Buddhist monks were driven from the country. No, the Chinese invented Ch'an (Zen) to gain psychological insight, a uniquely Chinese method, which far surpasses Indian Buddhist practices. Someday we will invent a method to solve our social problems—you have seen our crowded cities?—and then we will teach you!" I asked sarcastically, "And what will you do until you have found this magic trick?" He became irritated, "Don't tell any of my friends in the US, they will think I have gone crazy, we will 'muddle through' in the interim!" He laughed uncertainly—and I congratulated him to this so eminently reasonable idea....

Once on my own I had a series of unforgettable adventures, the description of which would fill another book. Without speaking more than a smattering of Chinese, I managed to make my way to the caves of Dunhuang at the edge of the Taklamakan Desert in order to see the largest Buddhist fresco-gallery in the world; tried in Xining to get on a bus to Lhasa and was taken off by the police; visited Kumbum, the Buddhist monastery where Alexandra David-Neel had spent many years as a Tibetan nun; hiked for four days across Holy Mount Emei Shan in Sichuan sleeping in its monasteries; recovered from exhaustion on Xi Shan, West Hill above beautiful Lake Dian outside of Kunming, and rode a bicycle between the strange hills of Guilin.....

A most trying journey on which I had to mobilize all my resources simply to survive.

Four years later, in October 1987, I took Barbara to China. This time I knew how to do it, and travel conditions, in particular the English speaking hotel personnel, had much improved. After 6 weeks crossing China twice on our own, avoiding intractable Beijing and all academic hassles, we ended our journey in Xiamen at the Second International Chinese Laser Conference. This time I had suggested a number of Russians to the conference committee, and after having passed six weeks of an extended exercise in emotional control we celebrated a euphoric reunion with Anatol and Sasha over mountains of delicious seafood. Once again we didn't make it to Tibet Its monks were practicing an uprising. In 1988 Cornelius would explore the Far West of China including Tibet, but he spoke Chinese and was lucky. We finally reached Tibet in September of 1995.

The USSR in 1984

Moscow

I don't have the vaguest recollection of what the play was about, Natasha, who accompanied me as interpreter, absorbed all my attention. During the intermission the tension between us became nearly unbearable. We circled each other like predators. She smoked one cigarette after another. Suddenly she whispered, "I saw a man from the institute." She nervously dumped her unfinished cigarette in an ashtray and begged. "Let's go, I don't want to be watched in your company." We left early.

Natasha and I had spent an intense morning at Vitali's lab editing papers, which he wanted to submit to Lasers '84. In gratitude Vitali had come up with two tickets for a performance at the Kremlin Theater. I had taken the opportunity to ask Natasha to accompany me, her English was fluent. Flustered, she had barely breathed yes, and a smiling Vitali had officially blessed the arrangement. Where to meet? Natasha, offered to pick me up at my hotel with her car.

She was not particular pretty, short tousled hair, a round Russian face, and a generous soft mouth with small, widely spaced teeth which barely filled her laugh. Her gray-green eyes, looking straight through me, seemed to search the endless Russian horizon. On that morning she wore a loose blouse and jeans that made her look like a teenager.

In the evening she appeared at the Academy Guest-House in a dark, transparent silk-crepe dress printed with large autumn flowers, which changed her to the twenty-six years she was. In her ear-lobes she wore a pair of small silver sea-snails. With great pride she demonstrated her yellow, new Zhiguli.

Her driver's license was barely older than the car. On that short ride to the center of town she was twice stopped by the police. She couldn't afford a citation. Playing all her female charms she escaped being given a ticket. We left the car on a lot behind the *Manege*.

When we returned we found a parking ticket on the car. "Let's walk," said Natasha biting her lip. She carelessly abandoned her precious possession. "I'll pick it up tomorrow." Walking through the Old Arbat we passed a run-down *art-nouveau* house. "My mother-in-law lives up there, my only friend. She saved my life. For four weeks she sat at my bedside after my daughter was born. I nearly died of a breast infection." I asked, "Your only child?" She nodded. Her husband worked for the Novosti News Agency. "He hardly looks at me anymore. For two years we were stationed in Mozambique, and I was happy. You have no idea how boring our life is here. We cannot afford to go to restaurants. My husband works all the time and spends every free minute with his buddies drinking and looking at American videos." She lived in an apartment block on Smolensky Boulevard. Pointing at a lit window from its inner courtyard, she said, "Up there is our apartment. My husband is still working." I asked whether her husband knew where she had been. She smiled, "He doesn't care. I told him that I was taking an VIP American scientist to the theater. It was he who suggested that I put on this dress, to make me look older." Before she vanished into the dark entrance, she gave me a long kiss: "One day, will you take me to a nice restaurant?"

By now I knew Moscow well and had lost my apprehensive caution. I moved about with self-assurance, used the Metro and the buses, and even hailed a taxi back to my hotel that night. I had read Bulgakov's "Master and Margarita", and caught myself acting out scenes from this fantasy. It was the first time I had lost my head over a Russian woman, and suddenly realized that I had fallen into the kind of trap I liked to dig for others. Actually I had come to see what it would be like in the USSR in the year of Orwell's "1984"! None of my Russian friends had heard of Orwell or his Russian model Evgheni Zamyatin. Was Big Brother watching me? I hadn't noticed.

At first sight, not much seemed to have changed in Moscow. On my rounds of the laboratories everyone was as friendly as ever. As a test, I had contacted unruly Yuri. Gregarious as always he invited me to the Institute of High Temperatures of the Academy of Sciences where his research was located. The institute's director and his

senior staff received me formally, and for an hour I had to thresh out phrases, which this time included an exchange of tiny Soviet and American flags.... Yuri's experimental results were impressive. Contradicting his American detractors they were quite real. He could, of course, not show me the burning-off of one of his explosive charges. That was done at a classified field station in Kazakhstan.

At night he invited me and a colleague for supper at Hotel National, where in 1977 over lunch with Vitali we had encountered the two "girls-of-easy-virtue". On the way Yuri stopped at the Ministry of Heavy Industry—so that was the source of his seemingly unlimited money: the head ministry of the defense industry!—He returned with two preference tickets for a dance performance at the Bolshoi Theater on Saturday. I asked whether I could use the second ticket at my discretion. Of course, he said immediately, almost offended. I called Natasha, asking how her yellow car was doing. She didn't use her or my name and was very brief on the phone, but accepted my invitation without hesitation. Why couldn't we see each other already in the morning?

At the hotel the wife of Yuri's colleague was waiting for us. Lucia was a good-looking, slender, extrovert woman in her early thirties. Another interpreter who spoke idiomatic English. She was a delight to dance with. Neither her husband nor Yuri seemed interested in a dance with her. "Don't worry," she said, "they are getting drunk. You have me all to yourself! A pity that tonight's arrangements will prevent me from spending the night with you...." I admired her outfit, a khaki-colored unisex pant-suit with a long single zipper up front. Her seamstress had copied it from an American fashion magazine. I teased her that she was zipped-up to her collarbone. She smiled, "But I have nothing under!" To prove it she pulled the zipper down to her navel....

We parted at the entrance to the Metro. Taking her tipsy husband by the arm Lucia walked into the dark tunnel, leaving me wondering, whether the second Bolshoi ticket had not been intended for her... and I had narrowly escaped a dangerous date. Not that I worried about being seduced, but I was still the carrier of secret American information.

At Basov's Lab I quickly noticed that my closest friends avoided me. There were no invitations to their homes as on previous occasions. Arkady shook my hand and apologetically said, "I have no permission to talk to you. See you later." Probably because of his personal troubles, I never saw him again. Basov's secretary informed me that the Academician would like to see me. The meeting never took place, and I never saw him again either. Reportedly he was "ill" and had to stay home. I left the copy of "Huckleberry Finn" I had brought for him with Vitali. As it would transpire years later, Basov's position, the fate of his laser work and his institute were hanging in the

balance already in 1984. A couple of months earlier Ustinov had died, and the defense programs were in disarray. I, therefore, attributed my friends' strange behavior not to Orwell's clairvoyance, but to the uncertain times. After Andropov had died Chernenko had been put into power, and nobody could predict what he would do.

How does a powerful empire go bankrupt? My answer had been that the fabric of its society comes apart, how that would manifest itself was not so obvious. And now I discovered that the Russian women were far ahead of their drunken husbands playing their own games with this fifty-three-year-old Foreigner...!

On Saturday Natasha awaited me outside my hotel. I had no idea what we should do together for an entire day, neither did I know a suitable restaurant to take her to. I was vaguely hoping that she would show me her Moscow, and she insisted that I had invited her. We wandered aimlessly through town. She didn't want to go to a museum or visit one of my beloved churches. A taxi driver, whom she finally hailed, suggested the Georgian restaurant, preventing a first serious quarrel.

A cheerless, subterraneous vault of halls and echoing dining rooms swallowed us: gray marble walls, dusty sculptures, bored waiters, and noisy guests at stained tables. She ordered enough to eat for four and two bottles of the awful, sweet Soviet *champanskoye*. Her aggressive mood only receded when she abandoned herself to the champagne. She drank fast and recklessly.

"How did I get into this situation?" she asked rhetorically. "You could be my father!" A thought which had already occurred to me. "If my father knew that I went out with a foreigner, he would thrash me. He has a high position in the Army and strictly forbade me any contact with foreigners. You could cost him his job."

This possibility I had not considered. Speaking in a whisper she said: "He told me that all foreigners are being shadowed by the secret service," and continued rebelliously, "I will show him that this is a lie."

My uneasiness rose. She emptied the last champagne from her glass and filled it a second time. With wide-set, crazy-green eyes she looked over her rim-full glass through me: "Why are you so dull? Don't you understand? I want you! This glass will be enough to make me drunk. Then you better watch out. You will not escape me."

I tried to laugh, but could only produce a grimace. A cold shower went down my spine. Silently, I waited how her monologue would continue. "Ha," she began again, "Are you afraid? What should happen to you?" The derisive pity in her voice changed to desperation: "You can simply leave me, but I am condemned to continue to live in this

dead country. The people I work with don't interest me, and all the places I would like to go to in the evening are reserved for foreigners. How long are you married, you and your precious Barbara? Twenty-five years! How did you survive that long?" A smile appeared around her inviting mouth, but her wild, determined gaze did not let me relax. "Tell me," she said, "should I finish this glass or not?"

I cannot remember how I freed myself from her eyes. With a single sweep I took the glass from her hand and drank it in one go. She was speechless. But then she relaxed, took me by the arm, and we wandered into the late afternoon.

Benches, since my student years had I not frequented so many benches nor been so vexed on a date. There was always a stern grandmother or a retired veteran watching us. Exhausted and dead tired I succumbed to a brief nap. Her excited whisper woke me. "A man walked by who knows me. Let's leave this area." We got up again and hurried on.

I dozed through most of the performance at the Bolshoi. Afterwards I walked her home. It was eleven at night. A blood-red sun hovered on the horizon undecided whether to end the day or not. On a bridge across the Moskva, the silhouette of the Kremlin etched on to the Western sky, our wild longing overcame us. Endless raging, desperately hungry kisses....

Several days passed. Abandoned by my friends, alone in the big city I had supper at the hotel-*buffet.* Suddenly Natasha stood next to me. She whispered, "I'll wait for you downstairs," and vanished.

A shock hit me. All entrances and floors of the hotel were guarded and everyone had to show a hotel-pass, how had she slipped in? Only a mad-woman would dare to search for a foreign guest in this place.

Deliberately slowly, not to arouse attention, I got up and found her in the parking lot. She was biting her lip. "Ha," she said with wild green eyes. "I went right to your room. Had you been there you would have been in for it tonight. My heart is still racing."

To avoid being seen together we walked towards October Square. "My husband will meet his friends tonight," she said, "he wouldn't be back until three. I had hoped to corner you here, but we have my apartment to ourselves..." Dizziness overcame me. She took my arm. Dazed, I followed her into the Metro. We stood close to each other. She took me by my coat front and bored her index finger through one of its button holes. Wiggling it she smiled. At the Smolenskaya Metro station she left me alone for a few minutes to make a telephone call. I considered flight. What a madness to invite an

easily recognizable foreigner into her apartment building where the walls had ears and the doors eyes. How were we to pass unseen up to her floor? And if someone surprised us in her apartment? Her husband returning earlier? After all there was a law against adultery in the Soviet Union too. What if this was an ordinary KGB trap? Whom was she talking to?—But I couldn't move, I stood rooted to the spot until she returned. "My husband has left, the air is clear," she said casually.

Her moves were now precise and quick. She bought a bottle of milk at a store. With ease she took me through the main gate and up the stairs passing ten apartment doors, unseen. In their tiny entry hall a woolly black, sheep-sized dog greeted us with wagging tail. She locked him into the bathroom. "The animal eats too much." She said as she poured the milk into the dog's bowl. "We cannot afford milk for ourselves." In her narrow kitchen a table with two chairs along the wall, a gas range, and a run-down refrigerator. Sitting in the open window I watched her purposeful movements in the little space left in between.

She led me by the hand into the living room. The sofa served as their bed, an easy-chair, a rug, and a coffee-table. "I'll play for you the records without which I couldn't live." Jazz at a deafening volume. It is all right, I thought, nobody will hear us. She poured herself a cheap cognac and sat on the floor. Barbra Streisand, whom I disliked, crooned a popular song. I knelt down next to her, took the glass from her, and slowly unbuttoned her blouse.—She had only one breast, in place of the other a massive, badly botched scar.... For the first time I felt a true affection for this girl....

At two at night, lights reflecting in the rain-wet asphalt, Natasha hailed a taxi for me.

Novosibirsk

This time I flew to Siberia during daylight hours. East of the Urals the sky was clear, dotted with the mushroom clouds of thunderstorms. The low afternoon sun cast long shadows on the seemingly endless tundra. The pilot flew a slalom course between them. Below the earth was pock-marked with hundreds of circular lakes, a few tracks, occasional clusters of forsaken habitation.

The XIV International Vavilov Conference took place in Akademgorodok, Academy-City, an hour south of Novosibirsk proper. Nestled in extended woods along Lake Ob, blocks of apartments, a number of institutes, the villas of the Academicians at the outskirts. Where did they get their food from? The few supermarkets were empty. I was told that ever since the inhabitants of Novosibirsk had flocked to their stores, all

provisions were brought in by truck and distributed through the institutes. They were better provided than Moscow. At several corners sat peddlers in Moslem scull caps selling colorful flowers, private business, they had flown in from Tashkent and Central Asia.

A sampling of foreigners attended the conference, old friends from Germany whom I had not seen since 1956, a fat confused physicist from Los Alamos, and a sizable delegation from East Berlin: Among them I found Randolf and a most independent woman scientist whom I had already noticed in Dresden. Her name turned out to be Noemi. She was Russian but lived with her East-German husband in Berlin, a local acquaintance commented with a dismissive gesture. In amazement I watched her push Wolfgang, the youthful leader of the GDR-delegation around. I figured that he was their *Aufpasser,* their political chaperon! I didn't have to ask for confirmation. He cornered me at the conference banquet and arrogantly demanded that I invite him to Lasers 'XX. He presented no papers at this conference. I told him coldly that he could submit a paper to me, we invited only bona-fide scientists.

Curious, I took Noemi on a walk in the evening, and she dropped the hint that Wolfgang was the good-for-nothing son of a professor of "political history" at Humboldt-University, once Germany's foremost university—my poor Fatherland... Noemi laughed, "This is what one calls 'inverted perspective' in medieval art, the important people stand in the background and are shown ten times larger than ordinary sinners. He can get lost, as far as I am concerned! I do what I like, I have a Russian passport, and this is Russia not the narrow-minded, bourgeois GDR." She had two half-grown daughters, and Volker, her physicist husband had graduated from Prokhorov's lab in Moscow, where they had met. Five years later we would finally meet Volker, the director of a highly-placed institute of the East-German Academy of Sciences. It got late, we had to inconvenience the night-watchman to let us into the dormitory where we all stayed. In the morning I found Noemi with her suitcase waiting for a taxi to take her to the airport. In a huff she told me, that Wolfgang had made a big public scene because of her returning late. "I have had it," she said. "I'll spend the rest of my leave with my mother in Moscow. Adieu!" For years, whenever she was not in the despised GDR, Noemi would write me long Russian letters in her inimitable German. A dear and very close friend of ours.

And there was Sasha, a serious physicist in his early forties from Krasnoyarsk. A prolific producer of exciting speculative papers in the fringe-field between atomic physics, optics, and lasers. I had invited him to Lasers '81, where we had a poignant encounter. He had joined us in a free-wheeling discussion with other Russians about the religiosity I claimed to have perceived in Russia. Sasha objected, there were no

religious sentiments in the Soviet Union, at least not among younger people. I laughed, how about the existence of Zagorsk, one of the very roots of Russia? Or didn't he say *spasibo* dozens of times a day? The common 'thank you,' which literally means (thank) Christ the Redeemer (*spas*). Pensive but demurring he had walked away.

Unusually moved, he now wanted to show me something most meaningful to him in Novosibirsk. He wouldn't say what. He organized a car and drove me to the only remaining church in town built during the times when Novosibirsk had been a transit camp for Siberian exiles. It was a colorful wood building, with many sky-blue domes and a flood of light in the interior. A rare 'working' church. I asked him why especially this building? He became pensive, "You remember our discussion in New Orleans? You have completely changed my view of my country. And it is not only that religion is the most important historical aspect of Russia—I have not changed my views about religion—but this place gives me the inner peace and strength which I had lost." I felt like hugging him, but he bade me to wait, he wanted to show me something else. He searched the town for a while before he found an unobtrusive old building in a side street: *Siberian State Museum of Nikolas Roerich*.

As it happened, Roerich (Rerich in Russian) was an old 'friend' of mine, whom I had, years earlier, discovered at the Oriental Museum in Moscow: Glowing, deeply spiritual paintings of the Himalayan, the Russian country side, and India. A Theosophist who, in contrast to Mme. Blavatsky, had actually lived in those places. Roerich had been an explorer, writer, and a prolific painter. Born in St. Petersburg, he had left Russia in 1920 for the US, founded a peace movement in New York and become a close friend of Roosevelt's. The mysterious Theosophical pyramid on the US dollar bill was his suggestion. There still exists a Roerich Society in New York promoting his theosophical teachings—which owns many of the best of his paintings. In 1929 Roerich moved to India where he died in 1947. I had no idea of the existence of the Novosibirsk museum, which housed some 60 paintings from his estate brought to Russia by his son. Sasha was delighted that we had a common interest in this man and his prophetic spiritual paintings. "I feel so much more Russian today and needed to share this experience with you." He said as we drove back

The weather was uncomfortably hot and humid, punctuated by fierce thunderstorms and near tropical down-pours. Daylight lasted until eleven at night. To refresh ourselves we got accustomed to walk, in small groups, to the shore of Lake Ob. One night I attached myself to Randolf and a few Russians. Summer lightning flickered on the distant horizon around the large expanse of water. Suddenly from the dark appeared a Russian physicist with a ravishing, read-haired woman. They stripped completely and jumped into the water. Nobody seemed to mind. I followed their

example. The water was surprisingly warm. Later, her companion introduced us. Illuminated by the flashes of the approaching thunderstorms the memory of Tanya's haunting face and her long bony hands, centuries older than she, lingered for months. A mediumistic woman from the wilds of Siberia.

One of the Siberians walked around offering shot glasses of vodka from a dubious bottle. I took one sniff and declined. It smelled like dangerously potent moonshine. But Randolf, speaking Russian, could not refuse. He had one small thimble of the methylated poison. Within minutes his legs simply collapsed under him. Suddenly Wolfgang materialized from the shadows, and together we dragged Randolf, who was fully conscious, to his room. Once there, I began to take off his shoes, but Wolfgang would not allow it. He didn't leave his side. Next day I admonished the conference organizers for of this nasty trick. They shrugged, it had been "simple Siberian vodka."

This affair had a diplomatic post-script. The fat man from Los Alamos got badly drunk and complained to his security management that the Soviets had subjected him to an interrogation trying to elicit classified information from him. Los Alamos called me to hear my version of what had happened. I shrugged, "it had been simple Siberian vodka!" They should not send emotionally unstable people to Russia. Los Alamos did not let the incident die and obliged the State Department to lodge a formal complaint with the Soviet Academy. I am sure they only laughed in Moscow....

There is an island in the middle of Lake Ob, locally known as "Taiwan", where to the conference organized an excursion by boat. A picnic was provided and all the pale Russian bodies congregated to it in bathing trunks. Tanya was there and her friend who involved me in a sharp controversy on the US missile threat and Star Wars. Overstepping my restrictions, I pointed out that the Soviet Union had quite recently fired a simultaneous salvo of eight missiles from their silos on their prearranged trajectories towards American targets—a fact which was classified in the US. Tanya's friend was incredulous and insisted that I was putting him on. I shrugged, the missiles had been destroyed over the polar wastes, but I was impressed by the restraint of the Reagan administration—which I truly was. It would have only been necessary to sound the air-raid sirens in the targeted areas, and we would have ended in a nuclear war. I did not mention our gravest concern: the US, after several disastrous miscalculation, had put all their eggs into the space-shuttle and had no capability for firing eight of their aging nuclear missiles in such short order.

On the boat-ride back Tanya, the Siberian medium suddenly sat down next to me and quietly put her head in my lap. I let it happen, we were all tired. Shortly, someone tapped her on the shoulder and whispered something to her. She jumped up and

vanished, never to be seen again. Later I found out that her companion had been her ex-husband, she actually lived in Moscow.

On the night-flight back to Moscow I discovered Elena next to me. All through that long night she, flirting extravagantly, involved me in a lengthy discussion of American literature, which she claimed to devour between eleven and one at night. Demanding a kiss in exchange, I left her my travel literature: Marques' "Hundred Years of Solitude", John Gardner's "Wreckage of Agathon, and "The Blood Oranges" by John Hawkes. They would keep her out of trouble for a while!—Yes, I did get my kiss!

Tbilisi

I was in high spirits and longed to get to Georgia. In another 30 hours I would hug Merab again! Natasha called and offered to take me to the airport, no, not with her car, in a taxi! It became late next morning, and the taxi driver raced against the clock. At the Intourist counter I discovered that I had forgotten to pick up my passport at the secretariat of the Academy Hotel. The frosty Intourist lady was unmoved, *nyet*, no passport, no flight and none later either. I got angry and Natasha had to drag me outside. "All you do," she admonished me, "is to make the life of her next customer hell. Let's go, I'll get you another flight." She had kept the taxi waiting, and we climbed in. She hugged and kissed me, crying, "I'll have you to myself for another whole day!" Despite my misgivings—what would we do?—I finally resigned myself to fate. Merab would wait, but all my elation was gone.

The lady at the hotel smiled, "No problem, we haven't changed your bed yet, just move back into your room." She handed me my passport. "It wasn't your fault, this could happen to anybody...."

Natasha took me to the city office of Aeroflot and, while I kept mum in the background, talked the attendant into issuing me another ticket for the following afternoon. After this success, Natasha decided that we both needed an ice-cream. The fashionable ice-cream parlor was empty. "Over there, at that table," said Natasha pointing, "I once spent an entire evening at a most endearing date." With one hand she populated the place with invisible ghosts. She had a not so novel request, "Take me for our last lunch to a real foreigners' restaurant." I took her to the luncheon room of the Hotel National. Brusquely pushing her past the guards, we climbed the stairs and ran in to the fat man from Los Alamos, who very excitedly began to tell me about his interrogation. Thank God, Natasha had the presence of mind to pass us and vanish upstairs, as if we didn't belong together. What an embarrassing security violation this

could have grown into!

The place, crowded with foreigners, offered a fabulous self-service buffet and typical American booths. Unimpressed Natasha refused to eat. "We call such a place *stolovaya,* literally stand-up-restaurant, I would never go here. Why didn't you take me to an elegant restaurant with good service? I cannot understand how all these rich Americans could like to eat here." I offered to get her something, what would she like? All in vain, while I ate an assortment of Russian delicacies, she sat across from me and sulked.

Not knowing how to please her, I took her to Donskaya Monastery, one of the most peaceful places in noisy Moscow. The old cathedral was surrounded by a large cemetery. There was nobody around. We found a bench on one of the graves. She held me in a tight embrace, while I looked across her shoulder at the grave stone. An oval enamel-picture of a young woman and a long inscription in pre-Revolutionary script. It took me a while to decipher: "Natalya Nikolayevna Prokhorova... died in her thirty-sixth year...." The ghosts were rising in broad daylight! This time I dragged her away from the place, superstitious as she was, before she could read this prescient epitaph.

The last leg of the flight to Tbilisi was very rough, the pilot dropped the plane so hard onto the runway that I worried about its landing gear. I had to walk backwards to the airport building not to be blown over by the fierce wind. It was late at night. Merab was not there. The familiar Intourist lady found my hotel reservation. Please I asked her, could she call Merab—I remembered that she knew him. At first she was taken aback, I told her that I had met her several times before. "Why not?" she finally said and called his number. He didn't answer. After some argument—forget your expensive Intourist taxis I told her, I know Tbilisi—she called a regular taxi for me.

Halfway into town I discovered a large white cathedral high on the left bank of the Kura. "What is this?" I asked the driver, "it was not there before." He gave me a long explanation, which overtaxed my Russian vocabulary. I was absolutely certain, it could only be Viktor Djorbenadze's latest building. A veritable cathedral, in Tbilisi in the Soviet Union? A large square had been razed in front of the Hotel Iveria and the buildings along Rustaveli Prospect had been replaced by an incongruent set of arches. When I paid the driver he smiled and pointed his thumb at the structure: "The Ears of Andropov!" he said and drove off. Tbilisi had changed.

Very early next morning I walked to Merab's apartment. He opened unshaven, hastily pulling up his pants. "Rolfi!" he cried hugging me, "where have you been?" We shared a cup of coffee. I briefly explained my missed flight, and then asked whether he had seen the new cathedral above the Kura. Merab raised his brows, "What cathedral?" "An

ultra-modern church," I explained. "It can only have been built by Viktor Djorbenadze." "Oh, that ugly thing!" Merab said disappointed, "it is the new Wedding Palace, you know, the place where people register their marriages. No, I have never been there, another Party building. They have built so many bad, new buildings, like that square with the fountain and these arches on Rustaveli Prospect. It's the grandstand for the October Revolution parade. They are ruining our city!" I put my finger to my mouth, "Psh," I whispered, "the Ears of Andropov are listening!" Merab developed the familiar three worry-creases on his forehead. He was not amused. "Who told you that?" he asked. I described the taxi driver. Merab recovered his familiar lopsided smile, "Be careful," he warned, "things are very unstable! Try to stay out of trouble, if only because of me."

Later he suggested to make the rounds of my friends, by car. We surprised Sophiko at the end of her German class. In front of her inquisitive students I got a most endearing hug and three kisses. "I don't have much free time today, may I invite you to go dancing tonight at our new night club?" I raised my eyes. "You have a night club now? Of course, I will dance with you."

We visited Lalako. She had fallen from grace and lived in the shabby apartment of her brother. Her old splendor, the French perfume, the leotard, the piano grand, and the Gudiashvili were all gone. She brewed us a Turkish coffee. "Oh," she said, "I have kept a surprise for you." She left for a few minutes and returned with a worn copy of *"La Derniere Princesse du Svaneti"* by Nana Gorgashvili, Paris 1911. "I found it in a second-hand bookstore and kept it all these years waiting for you to return. You remember your infatuation with Ekatarina? This is her Russian grandfather's pseudonymous trash novel which gave Ekatarina her *nom de plûme*. They have locked her up in a Russian camp together with her mentor Gamsakhurdia., poor girl. Have fun reading it!" Delighted, she watched my complete surprise.

All through this excited exchange Merab had remained uncomfortably silent. "Let's drive up to Mount Mtatsminda," he suggested. Lalako agreed that this would be a better place to talk.

Luna Park was teeming with people. We fled the crowd. Talking animatedly in English about old friends and the happenings of the last years, I noticed a well-dressed, middle-aged man all by himself on a park bench. He nodded to Lalako, and she suddenly lost her voice in the middle of a sentence. A minute later the man caught up with us, exchanged a few words with her, apologized in English, and walked her a few paces back. They had an agitated argument, after which she returned. "I am very sorry to break-up this conversation," she said. "I have to go with this man. We have to settle

a few out-standing accounts. Good bye, Rolf." She turned and followed the man in a hurry.

Merab, as confounded as I, was agitated and genuinely worried. He had no explanation for this incident, or who that man might have been. All through supper at the park restaurant his concern did not subside. Was he the man she had lived with or an undercover agent, or possibly both?

Years later, at a Lasers 'XX conference to which I had invited him, I guardedly asked Merab for Lalako. Merab had never heard from her again and still had no explanation of what had happened on that afternoon on Mtatsminda Georgi.

On that evening Sophiko arrived in a cheerful cotton dress. A little rounder than in 1980, she still was the same old Sophiko. She took me to a disco tucked away underneath the Archeological Museum, off Rustaveli Prospect. We found only a few young people in the small place. Nobody paid any attention to the foreigner, and none seemed to know Sophiko. We danced for a while, and settled at a table, ordered a bottle of white Tsinandali, and Sophiko began to talk about the little pleasures and troubles in her life. Later a young contortionist appeared winding himself into knots to a taped drum solo. A sorry performance, but the audience applauded and threw ruble notes into the hat he passed around. Suddenly Sophiko started to cry. What was it? "Ah, Rolf," she sighed, "life is difficult these days. They have drafted Mamuka into the army. You remember my son? He is now seventeen. I worry all the time that they might send him to Afghanistan." "Are there many Georgians in Afghanistan?" I asked. "Because Georgians have dark hair, and are more difficult to spot," she said, "they like to send them there. It is terrible. I might never hear from Mamuka or see him again." I took her arm and we left abandoning an half-empty bottle of wine.

Early next morning I made my way to the museum to search for Nino and take her up on her invitation of four years ago. I found her and two other girls in a dismally dark office passing the time, waiting for foreign tour groups. She appeared older and no happier, but she was genuinely delighted to see me and pleased that I had finally remembered her invitation.

We spent three hours in the museum. I rediscovered the dark canvasses of Niko Pirosmani full of carousing people, the landscapes and abstractions of David Kakabadze, and was newly repulsed by the fat dolls of Lado Gudiashvili with their pink lollipop-tits.

Nino took me into the *tresor,* the locked and guarded basement where the incomparable Georgian gold emailles are kept. She had obtained special permission to

open some of the cases, and I was able to hold these marvels in my hands and examine their delicate detailed craftsmanship. The most beautiful ones came from the 12th and 13th-century. Some had been made in Constantinople for the Georgian kings, but the best were Georgian: splendid cloisonnés of sophisticated design and brilliant colors, with an animation of the depicted people that surpassed the Byzantine works. For two years thereafter I experimented with cloisonné-enamels on Barbara's kitchen stove!

On the way back, I ran, completely unexpected, into Tamriko! She recognized me first. "My God, Rolf," she cried, "what are you doing here? No one has told me that you were coming." We hugged each other, and had coffee in one of the new cafés under the walls of Old Town. Eyed by the giggling girls running the place, we sat for an hour and talked about her life in Toronto. Jeffrey had not come back from Moscow. He had moved in with a Russian woman, but faithfully gave her enough money to get by. To make her agree to a separation, he had offered her the house he had inherited. His demand for a divorce had upset her so much that she had fled to her mother's place, with whom she had, of course, daily bitter fights. She was sure she wouldn't be able to stand the petty life of Tbilisi much longer and would return to Toronto, where a PhD thesis on Kant was waiting to be finished. "Let's go to our place," she suggested, "and surprise Asmat, my mother. You are her favorite. She'll be delighted to see you again."

Along the way she had to buy some material for a sewing project. The Armenian shopkeeper seized us up and with a smirk asked, whether I was her *natlimama*. Pealing with laughter Tamriko translated. "He has promoted you to Godfather!" This honorable designation has remained stuck to me to this day.

Her mother's insomniac eyes and her disheveled electric hair were still the same. "I love you, Rolf, I love you!" she repeated over and over again in her limited English. Tamriko, took me on a tour of the large, old apartment. Pervaded by a surreal emptiness, it appeared inhabited by ephemeral transients. Water-stained, gray-green walls, the ceiling peeling in large patches. A heavy oak dining-table occupied the center of the living room, a sideboard, a writing desk, and an upright piano were the only pieces of furniture. Incongruously, an unframed reproduction of Modigliani's 'Head of a Young Girl' hung forlorn over the sideboard. In her father's *kabinet*, shelves filled with books on ancient Mideastern artifacts, Tamriko said, "As long as I can remember my father has lived with a mistress elsewhere in town."

The most cheerful place was the large balcony, a standard fixture of every Georgian home. A pair of worn wicker-chairs with faded cushions to sit and catch the evening breeze. The vegetables, fruits, and wine flasks that are usually stored on these

balconies consisted of only a few items. The two women probably ate near nothing, which made a dinner invitation for the evening of my last day in Tbilisi appear extravagant.

At a supper invitation with several to me unknown men, Merab introduced me to Djemal. In a lengthy conversation with him, Merab unveiled a surprise plan. He proposed to drive to Western Georgia and if possible to Svaneti. Djemal, who came from Mingrelia, would foot the bill. My alarm bells began to ring, should Merab of all people want to set a trap for me? Djemal worked for a government publishing house—in other words for the 'information service'.—It looked very much like my old friend had contracted with the devil to fulfill my last, unfinished wish. At first rather cool to the idea, I talked to Djemal, he was not sharp enough to pass as a devil, and I decided that I could handle him. I agreed to the three-day outing wondering what new insights it would bring.

Our first stop was Gori, where the two tried to induce me to visit Stalin's birth place. I obstinately refused to set foot into the museum of the man who had destroyed my and my ancestors homeland in East Germany. Much disappointed, the visit was on Djemal's official agenda, they finally relented. Slowly Djemal revealed his interest in me, he wanted to know what impressions I had of the Chinese scientific advances, I had just returned from there. To Merab's amusement I began telling lengthy stories about my adventures in China. Djemal was frustrated, "You must realize," he argued, "that China is the ultimate danger in Asia. Maybe in California you live far away, here we are truly afraid of China." "Look," I said, "if that is the case, why don't you send Merab there, instead of trying to lift knowledge which my government paid for. I'll gladly make arrangements for Merab to be invited to the next Chinese laser conference. I am all for dispersing your ignorance and fear of this country." What could he do? He mumbled something about my superior insight and the length of my stay in China. For a while the subject was buried, and he continued to pay for gas and lodging.

Merab had finally found Ubisi on the map, very close to the main Zugdidi highway. I made them watch me with baited breath as I climbed a restoration scaffold and took close-up photos of the Damiane frescoes. They would turn out well, I was happy and Merab too. We stayed, Merab and I in one, Djemal in another room at a nondescript hotel in Zugdidi.

It was pouring next day, and as we passed the endless former tea plantations of the Dadiani, we easily agreed that it would simply be foolish to drive through the Inguri Gorge to Mestia. Djemal offered to spend the night in Djvari at the house of one of his relatives.

We arrived unannounced at the large house, and the women, with the help of two friends from the village, immediately set out to prepare a grand feast for the guests from the capital. Meanwhile Merab and Djemal played backgammon, and I inspected the bookshelf in the living room. Djemal's cousin was a well-to-do state farmer with no higher education, there were not many books. But next to an old photo of their grandchild and one of their oldest son in uniform, stood a picture of the infamous Supreme Hero of Georgia. A small plaster bust was also he! "Stalin was the Georgian Tiger...," Djemal said, when I raised my brows.

The feast started at three in the afternoon with Djemal as "tamada," the indispensable toastmaster of every Georgian feast. After three hours I felt very sleepy. I had drunk very little, but was ready to fall off my chair. With a motherly smile the understanding hostess, a Russian woman, took me upstairs into one of the bedrooms and told me to sleep for a while. I had just enough energy left to take a picture of the prowling velveteen Tiger who would watch over me from the headboard. When I woke a couple of hours later, the feast was in high gear. Two more befriended couples had arrived. The host made a lengthy toast to *my* wife and all other absent women and emptied a drinking horn with Djemal. They had forgiven me my refusal to join their carousing. This went on until 2:00 in the morning

For breakfast we were invited at the house of a technical vice-director of one of the two tea factories in Zugdidi. He bade us to wait in his living room. A splendid affair with a wet bar decorated with a colorful wall-poster of a Fall scene in Vermont, an elaborate mirror, and a vase of flowers! However, the *piece de resistance* were the guns in his study. Obviously, he was a learned man, which was insinuated by the piles of books, carelessly arranged for the our benefit. But guns? Once again I had to abandon another of my American prejudices. Private Soviet citizen *were* allowed to own guns! Well, the host explained that he was a member of the Zugdidi hunting club. Still they were real working guns—the status symbol of the *arrivé !*.... And all windows were barred with movable iron grills. Where there thieves in the Soviet Union, or was the owner of the house only temptingly "rich"? Later I noticed that most houses in Zugdidi had such barricades. Because in this socialist land not *all* citizens could be rich – I came to the conclusion that there were a lot of burglars in Mingrelia.... Which was exactly what the good people of Tbilisi had told me....

Breakfast was ready, a formidable array of bottles, including champagne at nine in the morning! All in front of a fireplace sheathed in hand-beaten copper. Finally I understood the reason for this impressive extravaganza. The good man had a daughter at Tbilisi State University who was not doing so well. He was trying to curry favor with Merab, in the hope that he would put in a word with her professors....

Merab, after we left, gave me a sorry smile and shrugged, she was simply not as clever as her engineer father.

We departed loaded with plastic bags of the finest Georgian tea. Merab made a detour to subtropical Tsalentsikha. There, among far-eastern cryptomerias and a lavish flora, stands the burial church of the Dadianis, where a cycle of frescoes by Eugenikos, a Constantinopolean painter of the 15th-century, could be admired. Unfortunately they were in abysmal condition.

In the afternoon Merab drove us along the Black Sea Coast as far as Nea Afoni, the monastery of New Athos. To break the drive we took a walk on the sea promenade of Sukhumi, my only visit to Moslem Abkhasia....

When we reached Tbilisi late at night, Djemal indicated that he wanted to continue our unfinished business at a local restaurant. The phone could not be unplugged, and besides that would have been suspect. It was hot in my room, the air-conditioning unit was "kaput," so I put my blanket over the phone. I never heard of Djemal again.

I had begged Merab to contact Viktor Djorbenadze to arrange for a meeting at the construction site of the new Wedding Palace. He was uncharacteristically deaf to my request. When he finally did call Djorbenadze, he was out of town. During our absence Viktor had left a message that he would give us a tour.

Dwarfed by its size, Merab and I walked around the building. Close up, it was even more impressive than viewed from town. A four-story-high, elliptical block faced with limestone. A bell tower at its western end.

When Viktor arrived, he greeted me in German. Shaking hands I asked point blank, "What is this?" Without hesitation, obliterating my opening move, he replied, "A Church!" I raised my eyebrows. "A modern church high above Tbilisi in Soviet Georgia? Visible to everyone? How can this be possible?" Djorbenadze raised his shoulders and spread his arms palms up. "As you see, here it stands. It is cast in concrete and will outlive our times." He smiled. "If the Party wants to retain its influence on its young people it will have to arrange itself with the Church. Ostensibly, it is a new 'Wedding Palace'—you know the registrar's office where the young komsomol marries his girlfriend. They now take their vows in a dusty office before a city clerk. Many follow this uninspiring act with an unofficial ceremony before a priest in a church. This building will provide a meaningful place to combine the two ceremonies under one roof."

Still incredulous—what a revolutionary idea!—I shook my head. "Who paid for the

building?" Djorbenadze thought for a moment and said quietly. "The ZK! – the Central Committee of the Georgian Communist Party. Seven Million Rubles as of this month!" (about $10 Million US at the time). Djorbenadze chucked his cigarette butt and, hunched into his jacket, lit another one. "The ZK asked me to build a new Wedding Palace, the old office building has been inadequate for years. I drew up the plans and presented it to Shevardnadze before the assembled ZK. They looked at the drawings and asked, like you did, 'What is this?' I told them, 'A Church'...." He looked at me savoring my surprise. "There was a tense silence, and then tumultuous shouting broke out." He scratched his curly head smiling at the memory. "After Shevardnadze had quieted the agitated parliamentarians, he said, 'We live far from the Center (Moscow). Build it Viktor!'. Shevardnadze is a thoughtful man who understands the dilemma facing the young generation. He is a close friend of mine who agrees with my reading of the future."

Viktor led us through a side door into the massive structure. Merab, not understanding German, followed patiently. A long curved corridor led past unfinished offices. While the outside had already been faced with limestone tiles, the inside was still in the raw. Deep in thought, Viktor said. "You see, the Eastern Church has always had a different relationship with the secular powers by comparison with the Western Church. Constantine had the Aghia Sophia built to glorify his imperial power, only then did he invite the Church to sprinkle Holy Water on the building." Viktor straightened himself and looked me in the eyes. "When you come back in five years, this regime will have vanished!" I was shocked. This prediction was not only a dangerous statement at a time when extreme paranoia and distrust paralyzed the Soviet Union, it appeared gratuitous. Disregarding my uneasiness, Viktor continued. "We have been captives of this revolution long enough. It has demanded blood and more blood. Let there be a measure of humanism among us, or we will drown. This building is my contribution to a renewal." — It was the 25th of May, 1984.... I don't have to describe what happened—or do I? Almost exactly five years later the Soviet Union disintegrated, shaken to its foundations by the death of twenty young Georgian women, whom the Soviet Ministry of Interior—with Gorbachev's consent—had most barbarously slaughtered in Tbilisi.

A broad spiral staircase led us into the main nave, an oval space visually stretched upwards by two soaring, elegantly curved columns. Between the columns a few steps led up to the elevated apse. Djorbenadze pointed at the eight-sided, oblong ceiling, technically a "false dome" composed of overlapping beams. "I took this ceiling structure from the earliest Georgian houses." He did not know that this type of construction also roofed the fifth-century Buddhist temples of Central Asia. An oval bridge connected the two columns half-way up, it would serve the choir. "The service of the Orthodox Church does not permit an organ or instruments, only the human

voice may praise God." He told us to wait, climbed up to the bridge, and with a beautiful tenor voice began to sing the Orthodox liturgy. The highly reverberate acoustics enveloped us in the sacred melody.

Attracted by an octagonal fountain-like structure at the center of the nave, I discovered that its shaft reached down three stories to the very foundations of the building. "You are looking at the 'Well of Djvari'." Djorbenadze shouted from the bridge. Djvari, the 6th-century Church of the Cross above Mtskheta is Georgia's National Sanctuary. It is dedicated to Saint Nino, the Cappadocian woman missionary who brought Christianity to the Georgians in the 4th century. With a few strokes on a cement sack Djorbenadze sketched the metal sculpture which would crown his "Fountain of Life": two globes—one on top the other on which sat two peacocks and two pigeons, symbols of love and peace. The sculpture would be cast by Irakli and Gogi Otchiauri.

He touched the unfinished walls of the apse. "I love these raw walls. One can see the architecture. But I have contracted with Zhurab Nisharadze, one of our best painters, to cover the walls with murals. He will also install stained-glass into the eight windows above the altar."

The ceiling of the altar apse, an open grid of curved, gilded I-beams carried a deep blue ceiling. A beautiful cover for the soaring space! Djorbenadze, delighted by my pleasure, said. "To have these beams bent to my specification was one of the most difficult tasks of the entire project."

He led us up a steep, spiral staircase, which ended abruptly at an open door. "This is the access for the Almighty." Djorbenadze laughed. "But to me more important is that here you can see the triumph of the architect over the limitations of his resources. My great pride!" He pointed at the improvised seams between the sheet-metal roofs of the nave and the apse. "We don't have computers like you to design intersections of complex three-dimensional surfaces. The roofers had to patch the gaps in their own way."

When we returned to the nave he talked of his vision of the future use of the building. "I dream that one day this church will be open to all religions. One week an Orthodox priest will perform weddings, another a Moslem Mullah, and a third a Jewish Rabbi." He shook his tousled head in sadness. "Unfortunately, this idea has not made me any friends."

We descended into the vast sub-floors, large halls, galleries. One room was filled with destroyed kitchen equipment, tables, a number of gas stoves, all badly damaged.

Viktor lit another cigarette and nodded at the jumble of equipment. "This was to be a kitchen for a restaurant that the ZK insisted on. They want to have a financial return from their investment. Wedding ceremonies do not bring in much money. I couldn't talk them out of the idea, so, one night my principal engineer and I destroyed the kitchen equipment with sledge hammers." I shook my head. He raised his voice, "This is the house of God, I will not tolerate to have it desecrated by money changers and commercial interests."—As it were, the kitchen was never rebuilt, but in 1989 a tacky discotheque squatted in the rooms of the restaurant. Eventually, it too vanished. "In the basement we already have a popular art gallery," laughed Viktor. "Some kids painted the walls with pornographic and religious graffiti...."

At the end of his tour Djorbenadze took us into his design office. He pulled out a floor plan of the nave. I looked at it. From a distance the interleaved elliptical shells, which surround the nave, first appeared to form an abstract face or mask with the two columns as eyes. On a second look another view appeared before my eyes. It was so startling that I stuttered: "Viktor. This looks like a cross-section through a female abdomen. The two spiral towers represent the ovaries and the nave the womb." Djorbenadze straightened up in amazement, then a broad smile crossed his face. "How is it possible that you guessed that? You are the first and only person who has noticed. You are absolutely right. My mother is a gynecologist, a drawing in one of her books inspired this floor plan." – He shook his head and explained the finer details. "You see, the groom's party enters through the 'male' tower, with an arcade copied from the palace of the Georgian kings. The bride's train ascends by way of the other spiral tower marked by six asymmetrical round windows." He smiled. "They meet before the altar. After the wedding ceremony, the young pair passes the 'Fountain of Life' and exits through the central door between the legs of the bell tower."

With a spontaneous gesture Djorbenadze presented me with his floor plan. "Take this as my acknowledgment of your superior imagination!" I later discovered that inside the "female" spiral tower Djorbenadze had noted in Russian *Zal' Imyanaretseniya*, a Soviet-era circumlocution for "Baptistery"!

The main entrance was still boarded up. We walked around the building to the large semicircular entry stairs from where one enjoyed a wide view of the Kura, the town, and the hills beyond. Here the two shells which embraced the elliptical core were rolled into the asymmetrical spiral towers. Between them rose the two high slabs that supported a bell-cage. The foot of the stairs was a concrete access ramp. Djorbenadze stamped his foot on the ground and explained that the hollow sound came from a cistern which would feed a waterfall next to the female tower.—The waterfall would never flow. During the heated arguments about the financing of the building, the ZK

canceled the funds for the required pumps.

Half-way up the stairs Viktor had erected a single column. In the medieval cathedrals of Europe the name saint of the town often stands on such a pillar. "I will place a copy of the Hermes by Praxiteles on this column. You know, the classical Greek sculpture of Hermes with the child in Olympia." I knew the Olympia museum, but could not recall a Hermes with a child. Whose child anyway? — Months later I learned that the name of the child, which had been Aphrodite's, was—Hermaphrodite...! Apparently the recasting of the Praxiteles sculpture had not been successful. Djorbenadze replaced it with a Hellenistic sculpture of an Hermaphrodite, which had been excavated in the Georgian Colchis. Prettily gilded, he now greets the newlyweds of Tbilisi—who have no idea of the significance of the naked saint nor of the intricacies of the building.

Viktor invited us for lunch at his house. He did not live in Vake where Merab and all the "better" people lived in Tbilisi, but in a side-street near the Hotel Adjara. He shared the apartment with his old mother. Apparently he was a bachelor. His tidy room was furnished very simply: a Spartan iron bed, a square table in the center, a drawing board, a bookstand, and a frieze just above eye-level running along all four walls. Puzzled I looked at its moderately erotic figures. It seemed an original oil on a slightly frayed canvas, and then it occurred to me that the cycle was, of course, by Lado Gudiashvili! On my question, a pleased Viktor explained that he had rescued the Gudiashvili frieze from an old house, which he had to demolish to build a new one. The frieze was his most precious possession.

Over a simple lunch which Viktor served himself, he described the raging debate about the financing of the building in the ZK and the community. With a sad smile he concluded. "Without Shevardnadze's protection I would not be sitting here with you." I asked him whether it might be helpful, if I were to publish an illustrated review of the wedding palace in an architectural journal in the West. He shook his head. "The time has not yet come." And then he smiled. "The cathedral has first to be weathered by our hostile climate for a few years. I don't like new buildings."

When we were ready to leave he took us to meet his 95-year-old mother. The old lady was exceptionally alert and charmingly inquired in German after my wife and children.

On our way home I had a spontaneous thought: Viktor was an aging homosexual.— That would explain a number of things, the floor plan of the cathedral, the frieze, the Spartan bed, his living with his mother, and his artistic sensitivity: He simply was not the regular Georgian *tamada*. Viktor was standing between the two old forces of Georgia, matriarchy and patriarchy. And that was where his creativity and his freedom from convention had their roots. The sculpture of Hermes with the child, had I known

the identity of the child at the time, was Viktor's confession.... I pressed Merab, and he reluctantly confirmed my hunch. Viktor had indeed been the most infamous homosexual of Tbilisi. His long-time partner had been Parajanov, a well-known Armenian actor and film director. Parajanov had spent several years in prison for his tendencies.

Viktor Djorbenadze died forgotten and disparaged in 1999. When I visited Tbilisi in 2001 the Wedding Cathedral was slowly crumbling. I felt that the time had come to rehabilitate Djorbenadze and his extraordinary building. There exists nothing like this cathedral in the former Soviet Union, and if one considers the history of this building, it may not have an equal anywhere.

I published an essay on Viktor and the cathedral in two Georgian emigrant journals and posted a set of pictures on my website. This created a storm of indignation in Tbilisi and among certain European philo-Georgians, but did nothing to rouse an international effort to rescue the building.

The story had an unexpected Georgian ending. In 2002 the Wedding Cathedral was bought by one Badri Patarkatsishvili, a Russian-Georgian oil-oligarch, for a tidy 10 million US dollars paid to one of Shevardnadze's newly-rich nephews....! Badri had got into trouble with Putin and remembering his Georgian ancestry fled from the Interpol to Tbilisi. He donated another goodly sum to the Georgian Patriarch to have himself baptized—in the Christian faith. He lives with his wife and two daughters in the renovated building—his formal residence.—And in 2004 Shevardnadze's rich nephew was caught at Tbilisi airport fleeing the country with 10 Million dollars in his luggage. Saakashvili, Shevardnadze's successor, had him imprisoned—and the wife of the fugitive paid another 15 Million dollars bail to have him released....

After this long eventful day I arrived late at Tamriko's dinner invitation. I was sure that this would create no problem. Tamriko and her mother would wait, the food at night had always been cold dishes.

An highly agitated Tamriko opened the door: where had I been? Making them all wait for an hour! The pizzas, she had made extra for me, had collapsed into cold, unsightly pieces. She led me into the living room, where I was faced with a scene straight from of a Pirosmani painting.

The entire family clan was present, including her estranged father, dressed in black. They all jumped up from their seats and stood around the table in an ominous *tableau* silently accusing me: Tamriko's father, a big sagging man, her crazy mother, her sister and her husband, another related couple, and "*patara* Tamri", Tamriko's young nice.

Tamriko introduced me. Everyone except little Tamri, was a professor of some exotic, politically inoffensive subject, bronze-age archeology, ancient Persian literature, art history. Everyone spoke English except her father who only spoke German.

Sheepishly I apologized explaining that I had been detained at Djorbenadze's new Cathedral. "What do you mean 'new Cathedral'?" Tamriko exclaimed aggressively. She got up from her chair next to me and in a most belligerent mood, began circling the table like a Greek Fury stalking her prey.

I told them that Viktor Djorbenadze had given me and Merab a tour of his new building on the other side of the Kura, above the electric power station. "Have you never seen it?" I asked, incredulous. "This is, what I call the new Cathedral of Tbilisi, an incredible, modern building of truly international stature. There is nothing like it in the USSR, and few buildings in the West can compare with it. A very beautiful design."

An icy silence descended on the room. Tamriko, pulling a face at me from behind her father's back, translated my words for him. The old man mumbled in German, "We have never seen this building, and we don't know a man by that name."

I was honestly puzzled. How could this Tbilisi intelligentsia be so block-headed, a blind would find that building. I recalled Merab's initial reluctance to contact Djorbenadze. The matter obviously lay deeper.

"Who is that Djorbenadze?" Tamriko said sharply with a toss of her head from behind her older sister. "How did you meet this man?"

I told them that I had befriended Viktor during my last visit, that he was the Tbilisi city architect and in my judgment an architect of international standing. "Who are you, to tell us such things?" Tamriko exclaimed reversing her direction. I defended myself, "I have seen two of his buildings, and I know something about modern architecture." I looked straight at her and, barely holding on to myself, said patiently "He is a very unusual man, the only person I have met in the USSR on this visit who has an independent judgment and is willing to say so."

Tamriko stopped at the opposite end of the table and shouted, "You fucking foreigner, you come here and want to tell us what we should think, ha?"

I lost my control and shouted back: "Except for Viktor Djorbenadze, this place is dead. You all toy with inoffensive subjects, afraid of being suspected of dissidents. This country is rotting fast. And I will tell you why Djorbenadze is different from other Georgian men, he is a homosexual!" Little Tamri asked what I had said. Her father

translated the missing word into Russian: *pederast*!

The women jumped off their chairs, while the men looked on with sheepish smiles. Tamriko, the Fury, stopped in her track and showered me with a volley of English obscenities. "....Why don't you fuck-off and go back to America, you stupid American asshole. We don't speak of such things in Tbilisi. Djorbenadze, this smutty Russian-lover, he does not exist for us. He is a marionette of the Party, a friend of that KGB-gangster Shevardnadze."

Taking cover behind the absurdity of this scene, I considered my options. A Georgian man would have stormed out of the room shouting terrible curses, and never seen any of Tamriko's family again. I decided to stay and stare them down: "Look Tamriko, one more of your foul insults, and I slap your face right in front of your father!" Tamriko rushed wailing hysterically from the room

But there are three Furies in Greek mythology: Her sister took over: "She is right," she said coldly, "you don't speak our language, how can you presume to understand us, and how can you dare to tell us what we should like, think, or do? You are an imbecile. Besides how do you know that Djorbenadze is a pervert?"

"I have been to his house," I said, "I met his mother, it is obvious." I refrained from reciting all the other evidence. They knew very well who was Viktor Djorbenadze.

"Why don't you go back to where you came from!" shouted Tamriko's sister pointing at the door.

Deeply hurt, I slowly rose. Someone talked to Tamriko's father, who politely offered to drive me to my hotel. Quite obviously he had not understood a word of the altercation. Only little Tamri was willing to see me off and joined us.

On the ride through town Tmariko's father asked for my opinion whether she should get divorced from Jeff or not. "I am against it," said the man who had lived thirty years with a mistress, driving his wife into a deep psychosis. "Tamriko is not suitable as a wife for any man," he continued, "but she would be considered no better than a whore, if she ever returned to Tbilisi divorced." In parting, little Tamriko embraced me and gave me three Georgian kisses...

I was dhighly worked up. The air conditioner was dead. It was unbearably hot. I only slept a couple of hours. Very early Merab and Sophiko saw me off at the airport.

At Moscow-Domodedovo Natasha waited for me. I had to transfer to Sheremetyevo to

catch my exit flight. She had brought her yellow Zhiguli. I raised my hands in melancholic despair. She laughed, "Don't worry, you'll get there in time. To make sure, I drove the route yesterday by myself." It was a warm sunny afternoon. In a pond along the expressway bathed summer-hungry people. We had enough time to have lunch together at the airport restaurant.

She stood at the barrier which separated the banished from the exiles. Helpless tears running down her cheeks. She stretched her hands out towards me. Under the stare of a security guard, deliberately slowly I walked over to her and kissed her now dead-gray eyes. In her folded hands she was hiding the two sea-snail silver earrings she had worn on the day we first met: "Give them to your wife, so that she'll remind you of me sometimes.—I will go now."

Already half-swallowed by customs, I turned back a last time to look for her. She was, a small bundle of misery, walking forlornly through the big hall back into her monotonous life.

I flew in an empty plane to London, where for the remainder of the day I sat exhausted in a rental chair in Hyde Park feeding the ducks and brooding about the people I had met and Viktor's prophecy.

The Final Years

1984-1989

And now, the end is near
And so I face the final curtain...
... I planned each charted course;
Each careful step along the byway,
But more, much more than this,
I did it my way....

Frank Sinatra: "My Way"

Actually by 1984 The End was nearer than anyone could have guessed—except "clairvoyant" Viktor: Chernenko soon died from a heart attack, and in March 1985 Mikhail Gorbachev was installed as General Secretary of the Party. He called Eduard Shevardnadze to fill Gromyko's position as Foreign Minister in Moscow and, with a remarkable touch of humor they threw out the Breshnev-Doctrin—"*Don't touch our satellites"*—and humming Frank Sinatra's "*My Way",* replaced it with the *Sinatra-*

Doctrine: "Let Eastern Europe go its own way". Shevardnadze reportedly told the hard-liners "No more interventions! It is time to realize that neither Socialism, nor friendship, nor good-neighborliness, nor respect can be produced by bayonets, tanks or blood." He was presumably also thinking of his Georgian homeland.

Janus-faced Shevardnadze: when one looked at him from the North through Russian glasses, he was just another Georgian *aferist*, a con-man. Worse yet, south of the Caucasus he appeared like the devil incarnate*, tetry melia sakartvelis*, the White Fox of Georgia, the Russian-lover, KGB-man, "the murderer of too many innocent Georgians" (Merab). None of my acquaintances in Georgia ever voluntarily supported Shevardnadze, not in 1980, nor in 1984 or 1989, and certainly not in 2001. He remained their fate, hated but irreplaceable.

Janus possessed only two faces, I think in 1984 Shevardnadze had acquired a third. I cannot present any proof for this hunch—except for Viktor Djorbenadze's outcry, "Let there be a measure of *humanism* among us, or we will drown...." An outrageous demand considering that in Russian *gumanist*, "humanist" together with *Mason,* "Free Mason" have since pre-Revolutionary times been two of the more offensive epithets one could use to condemn a despised person, e.g., the Romanovs.... Did Viktor Djorbenadze, Shevardnadze's close friend, introduce Gorbachev to the idea of *humanism*? Victor's architecture speaks for this conjecture, and for a while I felt that Viktor might have sympathized with the Free Masons. He is dead, I will never know. However, surely, Shevardnadze brought this idea to Moscow *not* Gorbachev.

Shevardnadze has never been given due credit for his contributions to the rapid dismantling of the Soviet juggernaut. His cosmopolitan demeanor did much to remove the notion of the "Evil Empire" from the Western vocabulary and pave Gorbachev's advances to the West. In 1989 the Duma, the old Russian Parliament was reestablished and Gorbachev was elected President of the USSR. In the following years the close relationship between Shevardnadze and Gorbachev increasingly deteriorated. Gorbachev, still dreaming of a rejuvenated Communist Party, tried desperately, using military force, to hold the internal ethnic fabric of the Russian empire together.

Another person who helped to change the Soviet image in the West was Raisa Gorbacheva. Arguably, since Tsar Nicholas II's wife, no woman had a greater visibility and influence on a Russian head of state than Raisa. Could *she* have swayed her husband to espouse humanist ideas? This notion I discussed with several of my Russian friends, who left no doubt that I was 'demented': Raiza's bold behavior was an embarrassment. Her contributions to the changes of Russian society, especially her encouragement of women to act responsibly for themselves, were only acknowledged

in her homeland after her husband resigned in 1991, and she was dying of leukemia.

Under the banner of *Glasnost*, openness, Gorbachev met with a number of Western statesmen, including Reagan, and one after the other the Soviet satellites declared their independence with barely a shrug from Moscow. Of course, Gorbachev was in no position to interfere. The disastrous effects of his ill-fated *Perestroika,* economic reform, had, within a few years, driven the country into economic and social chaos. In February 1989 the last Soviet forces left Afghanistan, but they remained stationed in the Soviet Republics, and in 1990-91 repeatedly intervened trying to prevent the Baltic Republics from going *their* own way.

During 1988-90 political and economic disasters struck the Soviet Union at an accelerated pace. Moscow could only stand by and nod its head when people in the GDR began to leave the country through Hungary by the hundreds. Demonstrations led by Protestant religious leaders and highly visible intellectuals like Masur, the conductor of the Leipzig Gewandhaus, demanded the removal of Honnegger and his government. On 9 November 1989 the unthinkable happened, through a misunderstanding a breach in the Berlin Wall opened and within hours thousands of ordinary people began dismantling this symbol of 25 years of Communist oppression. The Volkspolizei idly watched the process. The jubilation and relief was so great that a Berliner, a complete stranger, called me in Pacific Palisades to celebrate the Fall of the Wall with tears and rejoicing. At New Year 1989 Cornelius flew to Berlin and staying with Noemi observed the beer-happy celebration at the Brandenburg Gate.

Contrary to this euphoria my Soviet friends, whom I continued to meet each year at various conferences, held their heads low. Full of dark, ominous foreboding they watched their accustomed world collapse. One was Victor from Prokhorov's Institute, who in all seriousness told me that one day Russia would have to return to the unfinished business of the October Revolution, which by spurning Lenin's testament had turned ugly... I made him quite angry by pointing at Dzherzhinsky and laughing that they would not have peace until they had given Lenin a bourgeois burial in Ulyanova, the village near Samara where he was born. Lenin still lies in his mausoleum on Red Square and continues to be revered by a dwindling number of citizens....

In 1990 Gorbachev saw himself forced by Boris Yeltsin and the Duma to renounce the sole hegemony of the Communist Party—Gorbachev was still hoping to save the Soviet System.

In August 1991 a "junta" of conservative hard-liners attempted a coup to oust Gorbachev. It misfired, neither the masses nor the military rushed to their side. Surprising even to astute Western observers, the Soviet Army never interfered in these internal struggles. Military coups are a rare

phenomenon in Russian history. For several days Gorbachev was confined to house-arrest on the Crimean, where he had been on vacation. He returned to Moscow, but he had become fatally tainted. A few months later, he resigned, denounced by the Russian people as the destroyer of the once mighty Soviet Union—and inordinately celebrated by the West, which in 1990 had bestowed the Nobel Peace Prize on him. Gorbachev passed the Presidency on to his old antagonist Yeltsin, who in October of 1991 signed a decree dissolving the Soviet Union and transforming it into a "Commonwealth of Independent States" (CIS). After they were assured that the coup had failed, the three Baltic Republics, Moldavia, Azerbaidjan, and Zviad Gamsakhurdia, the newly elected (April 1991} Chairman of the Supreme Council of the Republic of Georgia refused to join this Russian dominated union and separated from the Commonwealth.

Throughout these turbulent years my single-handed "scientific exchange program" became hampered by a loss of interest in Soviet research on part of the US government and the Air Force. The sources of support for Soviet scientist to attend Lasers 'XX dried up. The Soviet threat had effectively vanished. I used to joke that Gorbachev had done us all in.... In addition a rift in its management split the conference. I left Lasers 'XX, but I still met my old friends when- and wherever they showed up. I had done my part, they did not need me any longer. The brighter ones were now able to come to the US on their own initiative. Glasnost had made official Soviet delegations and their guardians a thing of the past. There were even a few, like A. V. Danielichev from Basov's laboratory who left the USSR for good. He had got into serious troubles with Basov because of an oversold experiment—and one day he appeared at my house in a new Volvo! He had founded his own company in California with support from the US Air Force. I gave him a wide berth.

In early summer 1988, one of the most pleasant meetings took place at Stanford University. I found Victor there, an intelligent, highly ambitions group leader from Prokhorov's Lab, Arkady, and my old friend Sasha. I drove to Stanford with my own car and a tent and after the conference took Sasha on a two-day drive through the High Sierra and down Owen's Valley to Los Angeles. We camped in Forrest campgrounds. At first Sasha was apprehensive but he soon discovered the peace of these places and the grand beauty of the country. A wonderful journey.

Noemi had sent me a message that Volker, her husband, would, at the same time, be in San Francisco, and Barbara was also there with a German tour group. We met for dinner in Volker's hotel—and had one of the more unpleasant East-West meetings. Volker couldn't get over his East German hang-ups, and when he began to complain about the whores who had accosted him in the streets of San Francisco, I blew my stack. "Well, he said," capping it off, "our whores in Berlin are less aggressive and much more civilized." I don't remember what I said that aggravated him, probably my physical presence alone was enough.

I drove back to Stanford in great anger about myself and the deplorable split in our German psyche. Why could East Germany not open up like the USSR? Sasha gave me a bear hug: "They will, they will too!" he consoled me.

A chance happening in December 1988 on my final Lasers 'XX conference brought me a last invitation to the USSR. I had invited Sagdulla from Tashkent promising him the usual support. When he arrived penniless, and the conference organizers refused to back me up with money, I put him into the second bed in my room. He was overwhelmed, but we coexisted very well. He put five bags with dried fruits and nuts on the table to share and invited me to spend a few month teaching in Tashkent. I knew this was out of the question, but one morning had an idea. Cornelius had just graduated in Berkley with an experimental junior-thesis on the detection of sickle-cell anemia using a laser. A nice piece of original work. I woke Sagdulla and told him, if Cornelius could come along and give a lecture on his work, I would pay for him and use three-weeks of my vacation to fly to Moscow, Tashkent, and Tbilisi. Bakhramov was delighted and promised to arrange such a tour with the Soviet Academy.

Fully aware that sharing a room with another man on a business trip was an absolute no-no, and sleeping with a Soviet Citizen a serious security breach, I called the Aerospace security office. I told them what had happened and added that moreover, to cap it all off, the man was a Moslem! This gratuitous quip was lost on them, in those days few knew anything about Islam, but official consternation grew quickly. My boss cited me to his office. Why had I done such a foolish thing? I told him that I had had no choice. I had personally invited the man and had to get him out of his bind. It was simply an ordinary humanitarian deed, besides no classified information had been compromised, except maybe in my sleep—under stress I did sometimes talk in my dreams. Recently Barbara had awakened me on several occasions. Paul Thompson, my boss nodded and mumbled, so it was for humanitarian reasons.... He settled the matter.

As it was, Basov had been relieved of his position as a member of the Presidium of the Academy. There was even talk of abolishing the Academy of Sciences all together. By an overwhelming vote of the newly-elected, democratic governing body of the Lebedev, he had also lost his position as head of the Lebedev. He remained the director of his laboratory, but whiled away his days at home. Bakhramov, Nick Karlov, and Victor approached Prokhorov, who had retained his influence, and he issued the invitation. Cornelius and I would travel in the USSR as guests of the Russian (Moscow) Academy. After some hesitation, Aerospace, to protect itself and keep a legitimate security tap on my wanderings, turned it into an official business trip and offered to pay my flight to Moscow. Delighted I called Cornelius and made it clear that this would

be a unique opportunity, but also a strenuous journey demanding his full presence from morning into the night. In May of 1989 we flew into an entirely new experience.

My last visit to the USSR

with Cornelius 1989

Moscow

We found Moscow roiling in the grip of an ominous, subdued agitation. Every morning crowds gathered in dense clusters before the display boxes of the major newspapers. Vitali advised us to avoid any excited groups of people, to stay out of trouble for our own good—and his. Victor had been delegated to take personal care of us. Every morning he appeared at our hotel at 8:00 AM with a copy of "Moscow News", and over breakfast we discussed the latest political developments: For the first time since 1917 the Duma, Russia's Parliament, founded in 1907 by Graf Sergei Witte, was to reassemble. Newly elected delegations from every part of the Soviet Union were arriving to express the people's wishes and maybe decide the direction of Gorbachev's government. Daily, Moscow News brought new revelations about the misdeeds of the past: For the first time the slaughter of the 11000 Polish officers in Katyn in 1943 became public knowledge—to the palpable dismay of our friends. Sakharov, his health failing, admired by all our friends, would live for another 6 months and courageously push the intellectual process forward. A complete series-reprint of Orwell's "1984" appeared for the first time in "Ogonyok". Vitali marveled, "Have you ever read this? How could, in 1949, Orwell have known what it was like....?"

On a visit to Vitali's office at the Lebedev, the good man had been elected group leader, we found him mired in the novel task of distributing his meager funds in just raises to his people. "They are all my friends, how can I make an objective, impartial apportionment?" I offered to spend a couple of hours with him, doing that—which he gracefully declined. We now discovered the full extent of the changes to the Lebedev's management. Basov had become invisible. The new director of the Lebedev had become a young man I had never heard of—all by a universal vote of the members of the Institutes.

A similar vote had removed Vladilen Letokhov from his position at the Institute of Spectroscopy in Troitsk. While Cornelius was invited to visit to the Kurchatov Institute of Atomic Physics, where to I had never found entry, I boldly walked into Letokhov's office at the neighboring Institute of Spectroscopy. "My God, what have they done to you?" I asked him laughing. He waved his arms, he had never had so much time for his research in the past. We had a candid discussion of the changes in Academia. He shrugged, I will continue without any administrative burden. As imaginatively inventive as ever, he was, in 2000, offered an honorable professorship especially created for him at the University of Uppsala in Sweden. His blond second wife was from Estonia.

Victor and Nick Karlov arranged a lunch appointment with Prof. Prokhorov for Cornelius and me. Prokhorov gave himself most gracious and talkative. It was decided that Victor and his lively, intelligent wife Zoya would accompany us on our trip to Tashkent, and Ivan and his wife would take us to Tbilisi. Everything had been arranged to perfection. That evening Victor invited us to an elegant dinner at his house. I discovered that Zoya spoke some German, and we discussed her plan to establish a private enterprise employing a number of girls who would sew the dresses she was to design. But her business acumen was hampered by her honesty and socialist dislike of running such a capitalist venture.

Such scruples posed no problem for Igor, Genya's "useless" son whom we met on a supper invitation at his parent's house. Igor had requisitioned one room in his parents' apartment piled high with material for blue jeans and sports jackets. At night three of his girlfriends sewed the pieces, which were excellently made and had a fashionable cut. And then we discovered that their labels looked exactly like the labels of the famous Western manufacturers! He smiled, it had taken them weeks to duplicate the labels. Without them, he said, the blue jeans were worth only 40 rubles, with the tags he could ask 150 rubbles! Cornelius tried one on, it fitted perfectly, and he offered to buy one. Of course, that was not possible, Igor made him a present of the pair.

On Saturday morning we walked to the New State Art Gallery across from Gorki Park. Thirteen years earlier Genya had introduced me to the wife of a physicist friend, Natalya Avtonomova. She had then worked on a doctoral thesis on Kandinsky, now her labors as curator had finally borne fruit, the First Soviet Retrospective Exhibition of Kandinsky's entire oeuvre. She had been able to bring together over 150 paintings form all periods of his life, from Munich, New York, Paris, Leningrad, and some of the remotest provincial museums in the USSR into an overwhelming show. This exhibition tied together the many drive to abstraction had evolved from his Munich period via his Soviet time, the Bauhaus, New York into the elusive seemingly playful abstracts of his last years in Paris. Natalya's catalogue remains the only publication that accomplishes

this. The exhibition was shown briefly at the Schirn Gallery in Frankfurt-am-Main, before it dissolved again, and the paintings reverted back to their inaccessible locations in Tashkent or the Pacific provinces of the SU. Over time this morning has become the decisive experience for my understanding of this man.—When we walked back to the Academy Hotel all the church bells of Moscow were ringing, an unforgettable moment.

The days stretched way into the nights. I had called Natasha, asking for her dog and her little yellow car. The car had been sold, and the dog had been run over in front of her apartment. Her husband had left her, she was free. Stay with me, she said, which was, of course not possible. I begged her to call Peter. After a long Saturday walking all over Moscow—watching a group of Hare-Krishna-People dancing on the Old Arbat, displays of semi-religious kitsch paintings being sold on the side-walks, photographing the churches of the Kremlin in the dramatic light of a late sunset—we arrived at her place and found Peter with his son and his first wife there.... The reunion with this old friend after 9 years of near complete silence was overwhelming. We all cried. Peter was still apprehensive that our meeting could cost him his job. I did not ask, what he was doing. Peter stared at tall Cornelius, who looked smashing in his new jeans and a red shawl wound around his neck...and so did Natasha.—"You are so much older than I remember!" she told me in an aside. We left after taking Peter to the subway at 1:00 AM hitch-hiking back to the hotel. I gave a five rubble-note to the young driver, who laughing all the way discharged us at the hotel's door....

Vitali had offered to drive us to a nearby place of my choice and then take us to his dacha for the late afternoon. I chose Svenigorod, where I had been only once with Peter and Ivan—and could we take Natasha along? He remembered her from her days as translator at the institute. Natasha was delighted. We set out early on a magnificent Sunday morning. Natasha attached herself to Cornelius—which would cause me much trouble with him a few years later. Svenigorod had seen an external renovation, but the frescoes inside were still not open to the public. A series of photos show us in blissful harmony. Henriette, Vitali's wife had arranged a supper table for us, Natasha helped in the kitchen, while Cornelius and I admired every tree in Vitali's garden, and Cornelius tried hard to play Vitali's trumpet.... A true dacha-afternoon.

Natasha now worked for Intourist. Could she get us tickets for a performance at the Bolshoi? Yes, if I paid for them in dollars. We met her at her office, and she conned me into inviting her too—the tickets were not exactly cheap. That night we arrived late at the Bolshoi and found our preferred seats taken by a German tour group. It cost me an excited German argument before they were vacated. Squeezed between the irate Germans, we saw a mixture of classical and modern dance pieces—a couple gyrating

around each other mostly on the floor—and a display of male dancers in famous ballet excerpts including three falls during outrageous jumps.... Natasha was happy, Cornelius fought an attack of tiredness.

Noemi knew that we were in Moscow, and in true Noemi extravagance flew in from Berlin to see us. We met her one afternoon, "What do you want to do tonight?" she asked. I ventured to suggest a play at MkhAT – the Moscow Performing Artist's Theater, Stanislavsky's creation. They played "Chaika", the Seagull by Chekhov. "But you don't understand enough Russian to appreciate Chekhov's poetry!" protested Noemi. I told her that I had seen the play in Los Angeles, in London with Vanessa Redgrave, and in Munich, *all* dissatisfying performances. I finally wanted to see it played by Russians and what place could be more appropriate than MkhAT, where Chaika had had its premiere under Stanislavsky. Noemi relented and actually managed to get three good tickets at the box office.

It became a most memorable theater experience. The stage set—following Stanislavsky's 1897 original—was unique: two large gauze curtains, one behind the other, divided the depth of the stage. In front of the first a few pieces of furniture, the gazebo to the far right, between the two curtains a symbolic garden (a few trees, the lawn), and behind the second the lake, reeds, a punt—and an enormous moon. *All* actors were present on stage, some in front others further back. The garden darkened, the Seagull flew across the moon and cried "ia, ia" and the play began. I admit that, unable to follow the poetry (in the play inside the play), the first act was confusing, The two lovers recited their verses, as if they had never before experienced this emotion, but the mood was decidedly melancholic, even eerie—Russian? From the very beginning the scenes were overshadowed by the foreboding of the inevitable, tragic end. And that is what the Western productions lack: Vanessa Redgrave played a farce, the German edition was heavy-handed, dead serious without offering sufficient reasons, the American amateurish. The Russian resignation in the futility of all actions is alien to the West.

Slowly I began to appreciate that all characters are two-dimensional in this and other Chekhov plays. Everyone is followed by a (moral?) soul-shadow of which he cannot free himself or escape from. Stanislavsky's ingenious gauze curtains made this two-dimensionality visible. During the long play (without intermission) none of the actors ever leaves the stage, they temporally disappear in its darkened depth, but they and their destiny were always present. At the end the moon blossomed again to its full size, the famous shot rang out, and the Seagull fluttered across the stage and cried its cry. The dead man was never seen.

We spent an hour drinking beer at the bar of the Hotel National. I asked Noemi, concentrating on the words she had not seen any of these aspects. I was satisfied.

In retrospect, if I search my memory of this visit for any enthusiasm among my friends on these many intense meetings in Moscow, I come back empty handed. I recall a feeling of high tension and an expectant gloom, but little creative innovation and no hopes for the future. Yes, Genya and his wife were proud to have joined the "Green" party, and Victor hoped to be elected a corresponding member of the Academy—and secretly, that after Prokhorov's death he would inherit an ifluential position at his laboratory. But there existed several more aggressive or entrenched candidates for such a position and his students were not that great. He would come back several times in the next years to ask my advice, but the others did not need my sarcasm or encouragement any longer, they were going their own way.

Tashkent

We flew to Tashkent in an Ilyushin 96M, the latest Soviet wide-body plane, a huge boxcar with a cabin twice the height of a 747. Everything would have been fine, had I not have eaten some spoiled meat at lunch the day before. I had to use the emergency bag twice, and Zoya was very concerned. I knew it would pass by itself, if I ate nothing for a day.

Zoya was a true delight, her lively interest in art and beauty—she had never been in Central Asia—fitted mine, and for a few days I became her guide to the wonders of Islamic architecture. I also became aware that she was the "humanist" in their family, the counterbalance to Victor's academic ambitions.

Compared to Moscow Uzbekistan was dead quiet, deeply entrenched in an old-style communist bureaucracy. On a dinner invitation to a restaurant with members of Sagdulla's institute, I had a true run-in with its recalcitrant, old-style director, who insisted to seat me as far away from my acquaintances as he could. Very impolitely I banged the table and told the man, that I was going to sit where I wanted, there was no room for small dictators any longer. My Moscow friends were aghast, but I prevailed.

Every evening we ate "plov", as Zoya called it, a heavy pilaf made from rice, dried fruits, and mutton, very greasy. Every host was proud to present a slightly different recipe. The preparations took hours. The most entertaining evening was an invitation to Sagdulla's house. His wife had prepared a lavish and stylish Uzbek table. She turned

out to be an unusually outspoken D.Sci. in history, a thoroughly modern woman. Assisted by her radiantly beautiful and equally eloquent sister we discussed the new situation in Central Asia. "Why should we want to change the System?" said Mrs. Bakhramov. "Especially we women owe our freedom, our education, and our position in society to the Party. Look at me! We are for keeping this institution. The men flock to the mullahs—and the mosques are full, only the Party has protected us against Islam." Her husband smiled, and her sister volunteered to sing a patriotic song for us.... I often think of this harmonious gathering when I read the deplorable news from Uzbekistan today.

I had asked Sagdulla whether he knew an old Sufi, I had many questions to ask about early Sufi history in Samarkand. He revealed that we would, arranged by the Uzbek Academy, have a special audience with a highly educated Sufi—the foreign minister of the Mufti of all Islam in the Soviet Union. The Mufti himself had been elected as the Uzbek representative to the Duma and was in Moscow. It would be an official meeting which would also be attended by a the director and members of his institute and some Russian correspondents. Not exactly what I had envisioned. Cornelius and I put together a number of questions to ask, and I rehearsed the interview during the night before.

The place was a large hall in the Tashkent Medrese, the only Islamic school in the SU and the official residence of the Mufti. We were introduced to the 70-year old man—I have forgotten his name—a bent-over sage with the white beard of a Hadji and a kind countenance in an unassuming Moslem cassock, hands clasped on his back. My entourage had swollen to some fifteen notables who sat in rapt expectation around a long table. I let the Sufi open the interview. He asked in Uzbeki for my health and journey, what questions did I have in mind? My interpreter translated into English and another into Russian, and a scribe jotted down every word. I asked for the origins of Sufism. Many of the orders had their birthplace in 12th and 13th century Samarkand—his own ancestor was one of those. They were Sunni, later Sufism also spread among the Shiites. He confirmed that he was Sunni, which prompted me to inquire about the existence of radical fundamentalists—mostly Shiites—in Uzbekistan. He admitted to fundamentalist currents in Uzbekistan, but by and large they had no difficulties with radical elements here. He was decidedly against fundamental Islamic radicalism, words he directed as much at the Russian scribe as at me. I dropped, as inappropriate, a question about the revival of Islam during World War II, and asked him whether he would answer some personal questions. Why not, he was married, had three adult children, and several grandchildren. I complimented him on his large progeny and his luck of being a Sunni. He smiled. But what I was interested in was his educational background—and that question produced a surprise. He had two doctorates, one from

Cairo University in Islamic studies, another from Moscow in comparative languages. I bowed my head before such a learned man, and he, with a smile, almost slipped into English.... I had already suspected that he understood my questions long before they were translated. Yes, he admitted, he had also studied French in addition to Arabic and the local languages. We adhered to protocol and the use of the interpreters. A few cautious questions about his expectations for the future received vague, standard Soviet answers. I formally thanked him for his patience and time, and he escorted me, bent over, his hands clasped behind his back, as far as the great gate of the Medrese and wishing me a good journey and many interesting answers to my curiosity, he shook my hand.—My companions were impressed, and I was glad to have survived this diplomatic exercise in style.

Among my friends was now also my old friend Sasha from Krasnoyarsk. He and one of his senior students had flown in to meet us. It came as a great surprise to see this wise Russian friend again, and Sasha was especially interested in meeting Cornelius, who quite successfully presented his sickle-cell research at a seminar at the institute.

This time the Uzbeck Academy(!) had arranged a two-day excursion to Samarkand accompanied by a young bi-lingual female archeologist.

On the first day we went on a glorious tour of all the sites in Samarkand: starting with Afrasiab and its decaying museum (excavations in Afrasiab would begin only five years later - with spectacular results), the Observatory of Ulu-Begh, Shah-i-Zinda the Timurid Necropolis, Tamerlane's Tomb, Bibi Hanum, and the newly restored Medrese surrounding the Registran, including the magnificently restored interior of the mosque of the Tilla-Kari Medresa. Our day ended in a *son-et-lumiere* show at the Registran. We fell into bed dead-tired, especially Cornelius.... And then I was given the choice of an excursion next day to Pendikent, a pre-Tamerlane archeological site, or Shahr-i-Zabz, the location of Tamerlane's Ak-Serai and his birthplace. I choose Shahr-i-Zabz.

Our group filled a minibus: Victor and Zoya, Sasha, Sagdulla, Cornelius and myself, and our guide. Shahr-i-Zabz is a two hour drive south in the direction of the Afghanistan border. Rolling country, a low mountain range had to be crossed. While Cornelius, in the back of the car answered Sasha's and Victor's questions, I interrogated the guide about her life: Russian, lost in Uzbekistan like Oksana in 1977 by some quirk of fate, unhappily divorced, she made barely enough to feed herself and her child. She was understandably bitter. The future held no promises for her. Her education in archeology had by necessity come to an end: "I know less than you do about Islamic architecture, and I don't care. In this Moslem wasteland I will never find another man to marry." In Shahr-i-Zabz she scared up a local tour guide, long black braids, a cheerful

pink dress, who took us around. Only remnants of one enormous ivan (gate) of the fabled Ak-Serai, the White Palace of Tamerlane are still standing, but the remaining late tile mosaics are superb, exceeding any in Samarkand in sophistication. A visit to the burial mosque of Tamerlane's father concluded our historical visit.

We escaped into the colorful local market and there discovered several stands with *kimchi,* sold by Korean women! Where did they come from? A local student first asked permission from his professor before he told me their story. They were refugees from the Korean War, who had been settled here by the Russian authorities—some 50 families. Oh yes, an even larger group of Germans had, in the past two years, been repatriated to West Germany. Besides the Koreans there lived deported Ukrainians, Russians, Chechens, and Georgians in the area, only the Germans had been traded back by the German government, the lucky people.... Our guide purchased enough vegetables for two weeks to take home....

On our flight back a group of police officers suddenly appeared and demanded to see the identity papers of every person in the overcrowded plane. Victor became very tense, but could or would not explain what was happening, the police obviously searched for some person. They were not interested in the two foreigners. At Sheremetyevo, when we disembarked at night, the process was repeated. An ambulance, engine running, waited next to the plane. We never did see the wanted person being apprehended.... A dissident? An Islamic "freedom fighter"? Victor shrugged and rushed us out of the airport.

Tbilisi

As so often in the past, Georgia would provide the mind-shaking experience of this visit.

We sat around at Domodedovo airport in Moscow for a considerable time waiting for our flight. Ivan was very quiet, his sphinx-like wife never said anything anyway. I attributed Ivan's silence to his poor English and his stuttering handicap, but he was also visibly uneasy. Was it the unwelcome burden of being responsible for our well-being, the universal Russian fear of Georgia or something else? I didn't know him very well and didn't ask. We were surrounded by a noisy group of Chinese men chaperoned by a Russian interpreter. Cornelius listened to them and asked whether he could talk to the Chinese. Ivan nodded reluctantly. The surprised Chinese soon clustered around Cornelius. He had a grand time.

When we were finally seated we came to sit next to a serious, huge older gentleman. Because of our poor Russian, a trilingual conversation ensued in which Cornelius would speak Chinese to the interpreter who would then relay our questions to our neighbor in Russian. We learned that the man was Georgian, lived in Tbilisi-Vake, and was the Tbilisi guide for the Chinese delegation. Now Cornelius tried his Georgian on him, confessing that he had never learned the conjugations. Shaking his head in disbelief, the Georgian began giving him an introduction into Georgian grammar—which took up most of the two-hour flight to Tbilisi. When we landed I asked the man for his card, it was in Russian. Underneath his name, which I forgot, it said *"Gipnotizër"*. I had to read it aloud before I comprehended that he was a Hypnotist (in Russian H is transliterated by G)! I had to suppress a laugh, but the man confirmed my reading. Shaking hands in Georgian and Russian, I promised to call him some time for a further elucidation.

Merab, Sophie, Nino and Zhurab awaited us with two cars. The stormy reunion, "Cornelius, you have grown so much!" made us forget the hypnotist for a while. Later I pointed him out to Merab, who rolled his eyes heavenwards, "Leave me alone with this man. He gave a demonstration at the university. I want nothing to do with this charlatan."

We piled into Merab's car and left Ivan and his wife to Zhurab. "Rolf," said Merab, "before we take you to your hotel we have to make a detour to Sioni Cathedral. Something terrible has happened." The three looked ominously gloomy and Sophiko cried a few tears. In rapid words she described the horrid massacre of 20 young girls by forces of the Russian Ministry of the Interior.

This "incident" has largely been forgotten and especially in Georgia. None of the encyclopedias available to me mentions the event. Elsewhere a monument would have been erected to their honor and to remind the next generation of how this sacrifice had changed history. Not in Tbilisi, life and other problems quickly passed over the tragedy.

Everywhere in the Soviet Union the autonomous republics chafed against the Russian yoke in those weeks, while Gorbachev still contemplated ways of rescuing the Soviet Empire and the Communist Party. In Tbilisi, a couple of weeks before our arrival, a group of young girls had staged a sit-in on the stairs of Government House. They sang folk songs, spun wool, and fasted. A banner proclaimed, "We demand an independent, free Georgia". A large crowd on Rustaveli Boulevard applauded them and joined in their singing. Russian and Western television crews filmed. This continued for two days and a night. Russian troups under General Rodionov had been amassed north of town, but

remained stationary. Around midnight on the 9th of April, the second day of the protest, the electricity went dead in the entire central district of Tbilisi. A private infrared video tape showed unarmed Russian MVD-troops advancing down dark Rustaveli Blvd. The crowd fled in panic. It has never been completely clarified, but the troops seem to have used nerve gas and sharpened spades to kill the girls. They followed three who tried to escape and cut them down as far away as the Hotel Iveria. No shots seem to have been fired. Next day 20 girls and one young man, the entire group, lay dead in the morgue of the city hospital, some badly disfigured.

When we arrived at Sv. Sioni their coffins were laid out on a bier in the courtyard of the church covered with mountains of flowers, each with a large photograph and the name of the victim attached. Slowly a somber but disciplined gathering of people passed by the dais, lighting candles, praying, and quietly talking to each other. A few women were crying, but there was none of the customary demonstrative hysteria. Cornelius, who was deeply moved, and our Muscovite friends walked silently with Merab. Nino told me that like most everyone else she had known several of the dead girls. Georgian and black flags hung from many windows.

Tactful as only Merab could be, he proposed to drive Ivan, his wife, and us to Kazbegi. But even there we could not escape the tragic mood. Every village on our way was flagged in black. As a kind of pilgrimage we climbed the steep hill to Mtatsminda Zameba, this time including Merab. The day was beautiful. The mountain was unusually clear. Cornelius, sitting in a meadow of Caucasian Spring flowers drew the scenery. I took several long wanted photos.

One afternoon we all went to Djorbenadze's Wedding Palace. Merab drove Ivan and his wife, and Cornelius, Nino, and I hitch-hiked through town. The interior was finished, the large, allegorical murals much more tasteful than I had feared. Victor had furnished the church sparsely, letting the architecture speak: no seating, the Fountain of Life as he had drawn it for me in 1984, a few hanging copper candelabras, the long red carpet-runner to the altar was strewn with flowers from a recent wedding. In one office resided the registrar, the others were vacant. A tawdry discotheque, empty save for two arrogant youths, occupied the large hall in the lower floor.

One evening Sophiko took Cornelius and me to her sister's house. They had prepared a glamorous grand Georgian table for us. We sat on imitation period chairs around a large table overloaded with delicacies. The master of the house, a pompous "professor of history" involved me in a long tedious political discussion. At one time Sophiko and her sister drew Cornelius and me aside. In hushed voices they told us that Inga, the blond daughter of the house had for years suffered from excruciating headaches. She

was 24, a pediatrician, and lived with her husband, also a physician, in Moscow. A month ago a Moscow specialist had diagnosed her with a brain tumor. Could we call a specific Georgian cancer specialist in Los Angeles and ask him for an independent examination of Inga. They had written two letters to him but never received an answer. Inga and her husband would fly to LA, if such an appointment could be arranged for. We knew Inga from 1980. Of course, I offered my help, but in my heart I knew that the Los Angeles physician was not interested in taking on such an involved case and probably a penniless patient. They gave me his telephone number.

Returned to Los Angeles I tried, but never could get past the Georgian's secretary. Then at 3:00 AM one night a dissolved Sophiko called to tell us that Inga and her husband were on their way to LA. They had found a Russian-Jewish emigrant doctor who had offered to admit her as an indigent patient into the LA County Hospital and perform a thorough biopsy. Would we take care of them.... A nightmarish week followed, too long to tell here. The excellent physicians in that rat-infested hospital found a large, spread-out cancer in her brain, which could not be operatively removed. Doped with heroine, which her husband had bought on the black market, Inga was flown back at the expense of a fortune. She died eight months later in Tbilisi....

Merab had invited us and several of our Tbilisi friends to a farewell dinner at his house. As usual his mother and sister had labored an entire day to prepare it. The large color TV ran all during dinner, a well-known, female Georgian film director was giving a speech at a conference on the details of the Tbilisi massacre. I have rarely seen an angrier person on TV, and never anyone haranguing the Soviet Establishment more outspokenly. She spoke Russian, and we did not understand her words. It was not necessary. Dinner was forgotten, everyone sat glued to the screen.

"Come," said Gia, the discreet friend who had translated my lectures in 1980, "let's go outside onto the balcony where I can talk freely." We took our chairs along and sat there for an hour, while Gia unburdened himself. "This misdeed was Gorbachev's latest attempt on reigning in Georgia. We will get our freedom!" I intimated that he as Georgian might overstate the case. Why should Gorbachev dirty his hands with such a brutality? "You don't know the Russians," countered Gia. "The Soviet empire is falling apart. Gorbachev has his back to the wall. And in that situation any means are good enough to keep him in power. The night attack was planned for two days, Gorbachev must have known of Rodionov's intentions and given his blessing. Gorbachev is a murderer, and Perestroika are idle words, a smoke screen for the West. You noticed that the US government has not condemned the massacre with one word, an intentional misjudgment—to please Gorbachev." I wagged my head, what could I say? Gia raised his voice. "I tell you, this blood bath will be the end of Perestroika, of the

Soviet Union, the Communist Party, and Gorbachev."

He would be proven right. Within a year the Berlin Wall came down, Eastern Europe was free, and Transcaucasia, the Ukraine, Byelorussia, and the Baltics had split from the Union. Gorbachev was powerless to stop this process. He would be given the Nobel Peace Prize by a grateful West, but then stumble over the abolition of the Communist Party. And Georgia would, for the second time since 1917, declare its independence from Russia, overwhelmingly elect Gamsakhurdia as president and—within another year—skid into a terrible, humiliating fratricidal war…

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