

Peregrinations

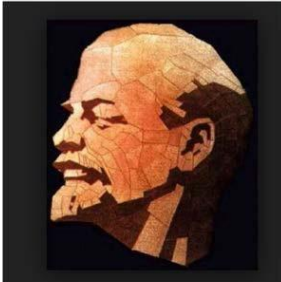
An American Immigrant Eclectic Voyage Across Two Centuries

Around the World in 80+ Years

Rom Mattesich

Punta Gorda, Florida

Anno Domini MMXIV



At peace on the Peace River in Florida

It is better to light a candle than to curse the darkness (Eleanor Roosevelt).

The farther backward you can look, the farther forward you are likely to see (Winston Churchill)

Dedications and Acknowledgements

To my wife Frinee and my children: Denise Buckenheimer, Eric Mattesich, Karen Dudas.

...and their children

Alec, Will, and Abbey Buckenheimer

Alexander, Christian and Maximo Mattesich

Mathew, Christopher and Andrew Dudas

as they head into maturity and form their lives, they will be challenged to discover their roots, the history, the culture which shaped their values.

A special thanks to the people who shaped my values, my career, and contributed to the editing of this manuscript:

Sister Josephine, the angel with grace, patience, and infinite love who instilled in me the joy of lifelong learning.

Irwin Dorros, the Bell Labs director who engaged and challenged his people to build on the proud tradition for excellence at the premier research institution for telephony in the world.

Hugh Jacks, who keeps reminding me of the life beyond the Bell System

Bill Acosta, the telecom professional and great friend, felled by Covid.

O.E. Philpot whose advice and friendship survived long after our joint tour in the world of telephony

Floyd Rohner, life long friend from the deep south who serves as an anchor to the world of telephony long after I left it.

Edgar Parra, the Venezuelan refugee, an architect who left a mark on the business and urban development scenes of Punta Gorda and Charlotte County. A great social companion that made the construction business less challenging and even fun.

...and, lastly

Dave Bird, the self-described farm boy from Ohio, whom I discovered late in life, and whose friendship, humor, wisdom, and generosity enriched my life in its sunset.

Of Peregrinations *The Oxford Dictionary defines peregrination as a "a journey, especially a long or meandering one." Life rarely evolves along a straight line. O. E. Philpot, a dear friend and former colleague in the phone company, was also my neighbor in Birmingham, Alabama.*

We commuted to work together. Rushing every morning to work along the shortest route from our tony neighborhood in Vestavia, he would occasionally startle me by detouring through some unfamiliar road: "Let's take some time to smell the roses," he would blurt out. Here is a much more convoluted quote from my favorite stream of consciousness practitioner, James Joyce.

O.E. is now wandering among the stars.

Would the departed never nowhere nohow reappear? Ever he would wander, selfcompelled, to the extreme limit of his cometary orbit, beyond the fixed stars and variable suns and telescopic planets, astronomical waifs and strays, to the extreme boundary of space, passing from land to land,, among people, amid events. Somewhere imperceptibly he would hear and somehow reluctantly, sun compelled, obey the summons of recall. Whence.... after incalculable eons of peregrinations...

James Joyce(1882-1941), Irish author. Ulysses, ch. 17, "Ithaca," The Corrected Text, ed. Hans Walter Gabler, Random House (1986).

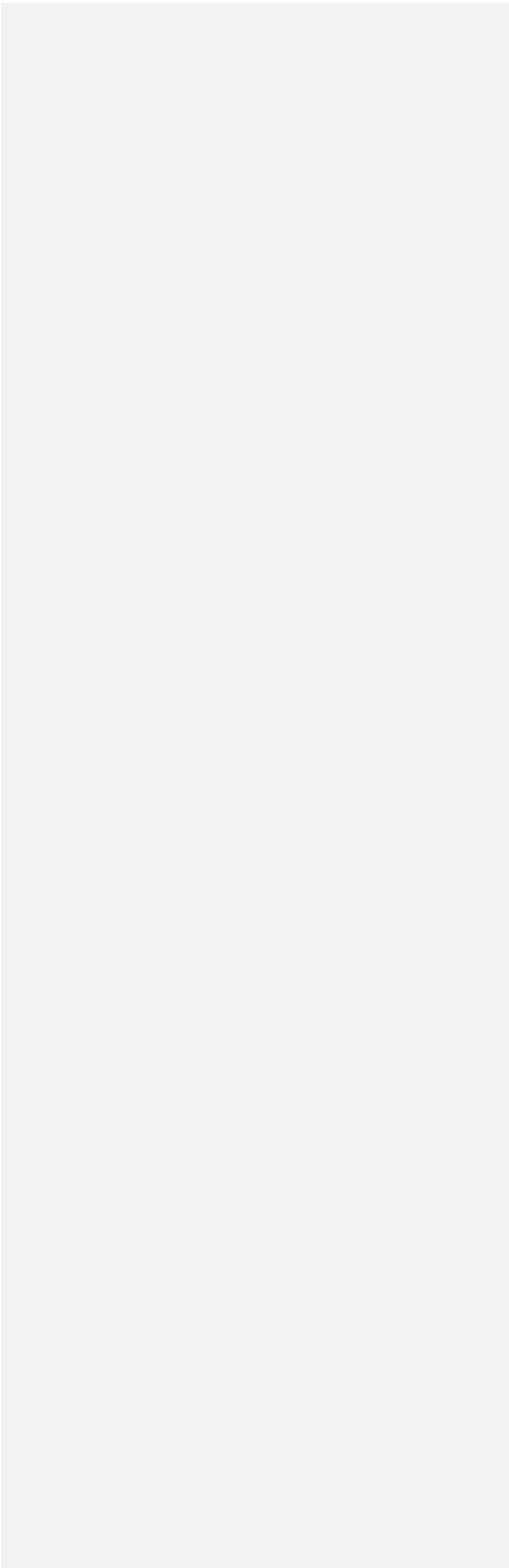
Contents

Prologue.....	8
Roots.....	11
Sansego or Susak: Depends on who Wins the Latest War	11
Women of Sansego.....	13
Boats to Freedom	15
Sansego: Life in Transition at Wartime.....	17
LifewithGrandfather.....	20
Post War Italy	22
New Start in Marano	22
The Miracle of Sister Josephine.....	23
On to Boarding Schools for Refugees	24
Time to Regroup.....	26
Life as a Seaman: The Amerigo Vespucci	28
Destination America.....	31
New Roots in America	33
Absorbing a New Culture.....	33
The Underground Factory	37
Vietnam Calling!	39
United Airlines is First on Takeoff with Automation	41
Home at the University of Virginia	43
The 60's: Formative Age for This Country and This Author	46
MIT, the Research Factory.....	49
Bell System – A World of Its Own	52
Genesis of a Monopoly	52

On the Line with Telephone Operators	54
Bell Labs: Driving the Transformation to an All-Digital Network	58
Internet Knocking on Bell Labs Doors: ARPAnet.....	61
The Picturephone Debacle	63
Data over Telephony: Fitting A Square Peg into Round Hole.....	64
AT&T Headquarters: In the Shadow of the World Trade Center Towers	65
The Rutgers Graduate School of Business Interlude	68
To Alabama: Deepest of the Deep South	70
The Emperor Has No Clothes Episode.....	77
In The Phone Company Trenches	79
Breaking Up the Bell System	85
The Battle of the Titans: AT&T vs. IBM	87
Heading for the Exits	88
Miami, the Capital of Latin America	91
First Business Target: The Dominican Republic.....	91
Facing Chaos at the Factory	93
Foray into Dominican Telecom.....	95
To Kill a Roach, Decisively	97
Telephony on Miami's South Beach	100
Interlude for a Second Go Around	104
Global Telephony under Stress	109
Back to Communism	111
Goodwill Games: the Afghanistan Connection	111
Moscow	113
The Business Model	116
Moving About the USSR	120

TransportationRussianStyle	123
Moscow State University in Pursuit of Its Own Silicon Valley.....	127
Kiev Polytechnic Institute	129
BusinessSiberianStyle.....	134
The Lottery: A Firestorm Ignited	138
Iron Ore: The Billion Dollar Opportunity	140
Crossing Paths with Presidential Wannabees.....	144
Soviet Empire on the Ropes	146
From Leningrad to St. Petersburg - A City Reinventing Itself	157
Rom's Hall of Fame	162
In Rome Do as the Romans Do, But be Careful what you Wish for	164
Thirty Seconds in the Ob River	167
A Qatar Excursion	168
End of the Soviet Adventure	169
Free for All in International Telephony	171
Arbitrage in International Communications.....	171
University of Miami Hiatus.....	175
GlobalXchange Communications: Solutions for the Age of Convergence	177
Life with the Swedes: The Telia Partnership	179
NAP of the Americas	182
Cuban by Osmosis	184
Foray into Cuban Politics.....	184
Business the Cuban Way	189
The 9/11 Disaster.....	192
Telecom: The Last Hurrah.....	196

The Hail Mary Pass	198
One More Fling at Politics	200
At the End of the Rainbow	203
Epilogue	206
Postscript	209



Prologue

Upon the first introduction to strangers, my foreign-born accent elicits the inevitable query: "Where are you from?" I cringe. The answer is complex. I am not eager to get distracted from the business at hand.... unless we are in a social setting and have time for idle chatting.

As I grow older, I have both the time and the inclination to reflect on not just my origins, but also on the larger question: "Who am I?" That is the real question on the mind of the enquirer. In this context, the particular geography I hail from is far less significant than the world that shaped me afterward.

My first inclination was to write my memoirs. Upon further reflection, I decided that was not an interesting a topic as was the world around me. What makes my life interesting and rich was that I witnessed some of the most dramatic historical and business events of the 20th and 21st centuries.

Dear reader, this is not an exercise in narcissism. It is more like an exercise in self discovery. I like to share with you experiences that enrich life, give meaning to it, and bring joy, and sorrow, which actually define life. You are invited to share a journey that will touch on history, *technology*, business, politics, some levity, and even religion. I approach the last topic with some trepidation and humility. I am leery of using my beliefs to cast aspersions on people who arrive to their truth from an entirely different route.

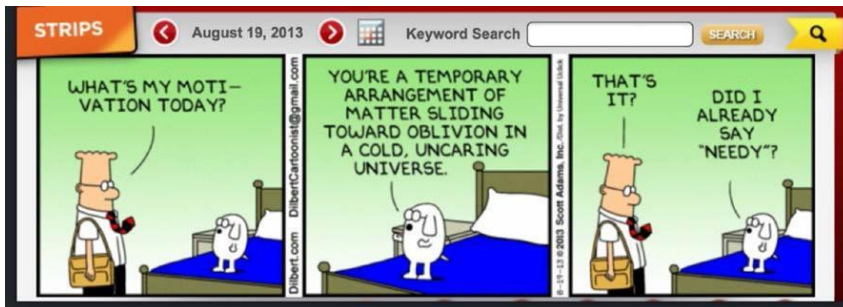
Some of these experiences are extraordinary. I often wonder whether they really happened. They did. I will share with the reader photographic evidence and mementos still in my possession. Events are generally defined in enough detail to identify people. In the interest of not transforming friends into enemies, I occasionally obscure the real name of events participants.

[Readers who have seen the famous 1994 movie *Forrest Gump*, will find some striking similarities to the story presented here, except that Tom Hanks, the principal character, stumbles on pivotal moments of our recent history were fictional. My story is real.]

As you grow older, you wonder what you have done with your life. More importantly, you like to know that your life made a difference...and that difference is remembered long after one's passing. Here are some choices:

1. Immortality. Probably the most popular expectation rooted in religious faith.

2. Children. Your contribution to life is extended via your children, who hopefully carry on and build on your knowledge, wealth, and value system.
3. More on the scientific side is the belief that no matter which way we enter and exit this world, we are all part of, and contribute to, a giant evolution scheme. Malthus may love this grand theory, but



DILBERT © 2013 Scott Adams. Used By permission of UNIVERSAL UCLICK. All rights reserved.

this author doesn't find it either intellectually or emotionally fulfilling: neither does Dilbert, my favorite comic.

4. A remarkable achievement: Einstein and his earth shattering discovery of the special theory of relativity. Christopher Colombo who discovered America. Beethoven and his 9th Symphony.
5. Live forever on the WEB. This is the newest form of immortality... and the most intriguing. *Once any information has been digitalized, it apparently never gets deleted.* Indeed, the information gets picked up, catalogued, spread like a virus by all sorts of search engines, and stored in anonymous servers all over the world. Some of it may wind up on a server in Outer Mongolia. Scary.

The body is a vessel for something much larger than its physical dimensions. That something lives on in any of the forms listed here. Pity to friends who draw no comfort from any of these stupendous possibilities.

My focus in this book is to share with the reader the story of a journey that spans multiple continents and two centuries. Unlike an historian who draws on documentation to paint a moving

picture of events describing a certain era, my history has been lived. As such, I consider myself a witness to history.

Much of my life is wrapped around the development of telephony and communications technology as it evolved around the US and the world concurrently with my own career. Another seminal event in my life was the consulting saga in a collapsing Soviet Union. I try to shy away from the super technical, aiming to engage, instead, in the discovery of new worlds, or unexplored corners of *this* world.

The digital revolution has fascinated me from its inception. I have made my own (modest) contribution to its progress. It is in recognition of this new paradigm that I commit this document.

Target Reader

This document covers a wide variety of topics.

It was written with the hope that generations of descendants will be able to learn about their roots.

Since my life revolved around the world of telephony and computers, much of the story will be appreciated by people with similar careers.

Most readers should be able to identify at least a morsel of their own life story contained herein. Please visit the Table of Contents to help you navigate to a section of interest.

This author welcomes comments to rmattesich@gmail.com.

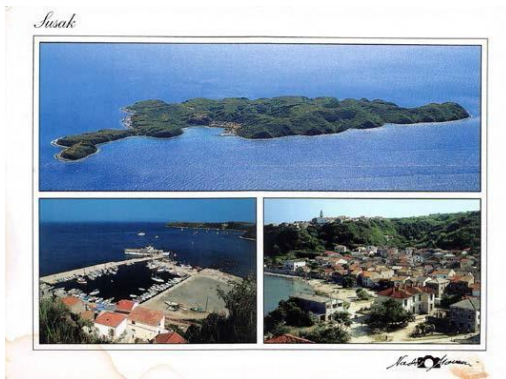
Roots

Sansego or Susak: Depends on who Wins the Latest War

The Adriatic Sea, confined within the larger Mediterranean basin, divides Italy from the Balkan countries of Croatia, Albania, and Greece. It hosts a chain of six hundreds plus islands. One of them, located on the lower right hand corner of the adjacent map (see arrow) locates a speck of land called *Sansego* in Italian and *Susak* in Croatian.



Sometimes it is referred to as "Otok Susak" the island of Susak. Susak or Sansego will be used interchangeably in this document. Adjacent figures exhibit various views of the island and its location in the Adriatic Sea. Mercantile states in Venice and Trieste dominated the sea lanes in previous centuries.



Its location on the fault line between various cultures, religions, languages, tribes means that it was at the vortex of the turbulent history of the region. It is now part of the independent country of Croatia.

My grandfather, who fought the Russians on behalf of the Austrian Hungarian Empire, was an Austrian citizen. At the conclusion of WWI, Susak and much of its surrounding region was allocated to Italy. Susak became Sansego. I was born an Italian citizen. Fascism was the

norm.

With the collapse of Italy's Fascism in WWII, the Nazi occupied the entire region. Civil war ensued. As the Nazi began to give way to the winning Allied front, communist guerrillas led by Marshal Tito, finally got the upper hand. They subdued a concoction of warring tribes and gave the new

country the name of *Yugoslavia*. My own province, Croatia, allegedly populated by Nazi sympathizers, took a terrible beating at the hands of the Communists.

Women of Sansego

Life in Sansego was harsh and very rudimentary. No running waters. No bathrooms. Occasional electricity. No vehicles. Not even a bicycle, or beasts of burden. At its peak in the late nineteen thirties, the island contained 2,000 inhabitants. Islanders subsisted on fishing, viticulture, and gardening.



islanders in the vicinity. If they made it to America, they would continue to project this image.



Only a dozen old people live on the island today, although the summer tends to attract local Croats, and a dwindling number of expatriates.

The island spawned its own distinctive culture. The women were particularly unique. They wore their distinctive garb, spoke a unique dialect, a garrulous mixture of Italian and Croatian, and a mannerism that stood out among all other

Susak - 1940



Grapes 1940



The women dressed in black could be coerced to cry for hours at the bier of the dearly departed, or act as wet nurses, all for a small fee. My mother outsourced her baby nursing to more prolific milk producers among the Sansegote. I am a product of such nursing.

SANSEGO / SUSAK

Women provided the only mode of transportation in the hilly island.

They carried all sorts of loads on their heads in round, generally wooden, containers. During grape harvesting, they organized themselves in bucket brigades and carried the loads, singing, down from the vineyards dotting the terraced landscape of the island, to the central square.



Loads were dumped into a large wooden vat. Children would then have the fun of their lives stomping on the grape and engaging in grape fights inside the vat. Such was the first step in the process of creating the local wine. Legend has it that the wine from Sansego was celebrated by none other than Franz Josef, Emperor of the old

Austro-Hungarian Empire.

Nearby islanders considered the women primitive. They were nevertheless shrewd traders. They knew how to drive a bargain when they went on bartering trips to other islands.

They were also savvy. One of them, my paternal grandmother, depicted here between Rom¹ on the left, and brother Nick on the right, saved Nick's life. At age one he developed some kind of infection. The monthly visiting doctor advised mother to feed him only a broth, which he promptly rejected. He was approaching death. Father prepared a tiny casket. The women dubbed Nick as *Lino, piccolo morto, or Nick the dead baby*.

Grandma talked my mother into feeding Nick some large *fava* beans. Her logic: he is dying anyway. Grandma chewed some boiled *fava* and gave them to Nick. He opened his mouth wide open for more. Within a few days he was more alive than ever. He was simply starving to death.

I retain great respect and affection for our women. They literally gave us life and sustenance.



¹ The author's birth name is Romolo Giuliano Mattesich.

² A far more complete version of this period can be found on a companion Amazon book ("Canaries Can't Cry") by my sister Antonia Burgato.

Boats to Freedom

With Nazis withdrawing and civil war raging, many Sansegoti took to the sea. They left the island in the darkness of night, on small boats, powered by engines which coughed and sputtered as if they were about to give their last breath. These engines needed a pump to circulate cooling sea water through the body of the engine. The water would not spontaneously start flowing. Someone had to lean precariously overboard, start sucking air from the egress pipe until the mouth filled up with salt water... what a wonderful example of men-machines cooperation. It was a simple but effective operation. They were soon on their way to the Italian mainland about seventy miles to the west.

If they made it to the mainland, they would consider themselves lucky, for many of their compatriots faced a gauntlet of German gun boats, communist gunboats, strafing from the air from rogue airplanes of uncertain nationality. Interception by any of these hostile boats almost certainly meant death by machine gunners who considered the would-be escapees as traitors.



Trigger happy marauders were only part of the hazards faced by the Sansegoti fleeing their island for an uncertain future in Italy. Rickety boats, primitive engines, scarce fuel, water, and food supplies, disease were common hazards encountered by the escapees. An ill wind from the east called "bora" could pop up unpredictably to whip up ferocious winds capable of overturning the boat in a sea with waves reaching twenty feet. Only God knows how many souls were lost at sea during the WWII period and its immediate aftermath.

Those who made it to Italy, were whisked to internment camps. My uncle and most of my cousins, whose picture made the refugees paper ("Difesa Adriatica"), were classical examples of survivors. Their future in post war Italy was bleak. The universal goal of the Sansegoti was to make it to dreamland America.

Grace, whose family had strong ties to my mother, and eventually became my wife, was smuggled out on a small boat which ran out of fuel. The boat was adrift in the Adriatic Sea for three days. She was eventually rescued and the boat was towed to the easternmost Italian city of Trieste. The most terrifying moment was when the larger boat that found them was approaching the drifting boat. If it turned out to be a Yugoslavian gunboat, they would probably all have been murdered or incarcerated.

The same smuggler was not as lucky on the next trip. He was intercepted by a Yugoslavian gunboat. He and all his passengers perished.

Upon landing and settling on the Italian mainland, the men from Sansego sought a job as seafarers on some passenger, cargo, or oil tanker of whatever nationality. This required the acquisition of a document issued by Italian authorities called the "matricola." Authorities insisted on getting a bribe prior to issuing this document.

Without the benefit of solid statistics, but using anecdotal episodes, which touched many of our countrymen and close family members, most, if not all, seafarers "jumped ship" the moment they landed in America.

Hoboken, New Jersey, was the Sansego's preferred home in the USA. Many got jobs as longshoremen loading and unloading cargo ships in the New York harbor. Much of the money they earned went to support their family in Italy, or still in Susak. A lively dollar based economy sprouted in my little island. My grandfather, a builder, built numerous rudimentary homes funded by American dollars.

The Eisenhower administration triggered a massive migration from Susak when it opened a special immigration quota for "Refugees from Communism." President Eisenhower earned a special place in the pantheon of saints worshipped by my people. John Kennedy turned out to be the only other president that approached the veneration reserved for our saints.

As of this writing, ninety percent of the Sansego and their offsprings live in the New York, New Jersey region. Several were detained and deported back to Italy, but were able to return legally under the protection of Eisenhower's special quota for refugees.

Formatted: Line spacing: single

Sansego: Life in Transition at Wartime

Upon return from the Russian front, my maternal grandfather, Romolo Lechich, settled down in Sansego. It is unclear what stimulated him to move to an island with the reputation for being among the poorest, most backward, and culturally isolated island in the Adriatic archipelago. He did and prospered as a builder of homes funded by the dollars of the seafarers and Sansegoti already in America. He also acquired much of the available vineyards on the island and built a grappa distillery which produced a vodka-like alcohol very popular in our part of the world. He became the wealthiest man on the island.



Grandfather Romolo



Mother Anita



Father Stefano

Was he also the meanest? My mother, Anita, the second child of his three marriages, complained how hard driving, no nonsense, no warmth, and stern he was with his family, particularly the women. Today he would be accused of being abusive. In those times, he was a conventional, chauvinistic, dictatorial patriarch.

Grandpa, like many of his generation, was illiterate. He sent young Anita to a private, nuns run school in a nearby island. He was eager for her to become the first educated member of the family to help him professionalize his various business ventures. One problem: Anita soon fell in love with a dashing young Sansegoti, Stefano. Grandpa considered him a loser. He had some other ideas about when and whom she should marry. In our island, you do not carry on a love affair without everybody knowing about and be scandalized by it. Love blossomed furtively. A mini Romeo and Julietta drama ensued.

The eventual outcome was that Anita married her Stefano... and grandpa promptly disavowed them both. The young couple was on its own. It found refuge in a corner of a house of friends of Stefano.

With war looming, Stefano was drafted into the Italian Navy. He was dismissed shortly thereafter because he contracted tuberculosis, a death sentence in those days.

Upon return to Sansego, he witnessed the birth of his first child, Nicholas ("Nick"). Stefano eked out a living as a carpenter in the soffit of the distillery which grandpa allowed him to use under duress.

Three years after Nick, I arrived. Mother insisted in calling me Romolo, hoping to pacify her father, and possibly become a favorite inheritor to his wealth.

Stefano's health was deteriorating. He died leaving Anita's pregnant yet again with their third son, Rosario ("Ricky").

Becoming a widow in our town was the next closest thing to a death sentence. The widow should wear a black dress and a scarf for the rest of her life.

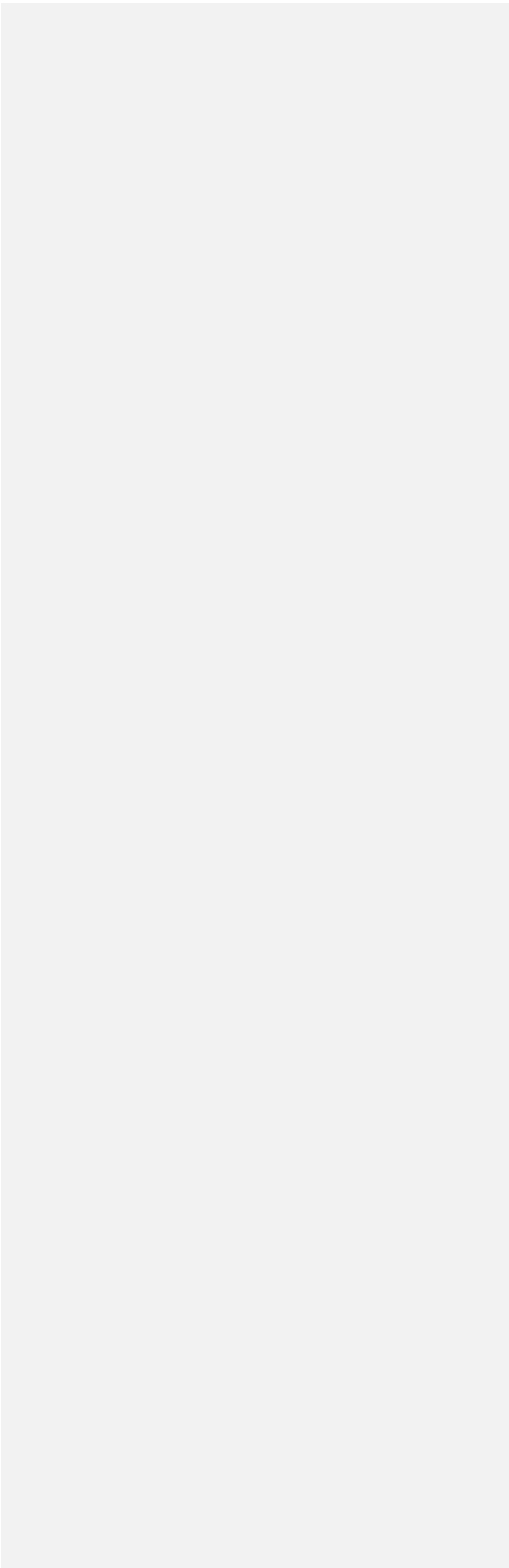
Anita, a young widow, with three children, ostracized by her father, and facing the extra hardship of war and near famine conditions, got a job cooking food for a few imported mechanics working in a small Italian owned sardine-canning factory. An older gentleman, Ottorino, a widow, offered to marry her. She accepted. No better way to earn the opprobrium of the community than for a widow to marry a man, an old non-Sansegoto to boot!

Ottorino, wounded by a bomb aimed at the small factory, decided that it was prudent for him and his young new family, which by now included sister Antonietta, to leave Sansego and head for Marano Lagunare, a small town near Venice. His employer owned another factory; thus assuring further employment and housing for his family.

In 1944, the Nazis had solid control of the region. Ottorino managed to engage a fishing trawler, get German clearance, and moved his family to Marano.

Minus one member: ME!

My mother prevailed on grandpa to look after me until she was able to resettle successfully in the new town of Marano.



Life with Grandfather

Widowed twice, married for a third time, working from sunrise to sunset on all his properties, grandfather had to do most of the required physical work himself. Many of his workers were either inducted into various armies or simply fled the island. The new communist bureaucrats were harassing him: they were threatening him with confiscatory taxes, outright confiscation of his properties, and even jail for not disclosing the whereabouts of relatives and friends who fled the island. I was left to fend for myself. The last thing he seemed to care, or had time for, was my welfare. I am not sure he was even aware that I existed.

Together with a dozen other youngsters, I attended first through third grade classes in a one room schoolhouse. I learned exactly ZERO. The only vivid memory I retain was singing communist songs with particular emphasis on extolling the greatness of Marshal Tito. Classical cult of personality: three generations later still widely practiced in North Korea.

It was a lonesome period for a sensitive kid growing up alone. I spent much time fantasizing that my father was coming back. I also wondered what happened to my mother and the rest of my family.

I did learn to help grandpa in his distillery. I was fascinated observing the steam turning fermented grape into grappa. I moved the grappa from large flasks into large vats. Grandfather was growing irritated that I should spend so much time in the distillery. He thought I should spend more time studying: he had no clue as to what a joke was the local school. Nevertheless, he decided one day to grab me by the ear and dragged me from the distillery to his home, a distance of about two blocks. He locked me up in a cellar in the company of a bunch of salami hanging from the ceiling with the admonition:

"You are not coming out until you decide to study."

Talking about tough love! This is the most lasting memory of my grandfather. He did care enough that I should get some education.

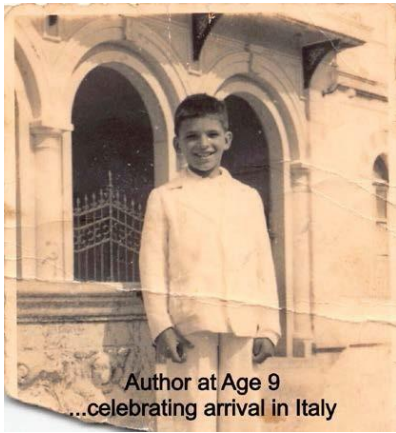
Left unattended, I developed a serious ear infection which was ignored for years. Somehow word reached my mother that I looked malnourished, sick, and otherwise unkempt. She prevailed on an uncle of mine with a fishing trawler to get me out of Sansego, and bring me to her new home in Marano.

The year was 1946. I was nine when I finally left Sansego. The Nazi were gone, and Tito's Yugoslavia was well established as a communist dictatorship. Italy was reeling from the wounds of WWII. A wobbly democracy was formed with a strong section of the country under the political influence of the Italian Communist Party (PCI), and a residual rabble rousing minority of fascist sympathizers under the umbrella of a party called the Movimento Sociale Italiano (MSI).

Post War Italy

New Start in Marano

When my uncle finally delivered me to my mother in Marano, she did not recognize me. I was disheveled, confused, and barely able to communicate. I could not speak Italian, nor could I speak Croatian. I was babbling in a dialect only spoken in Sansego. My infected ear was raging out of control. The three year separation from my family came at a crucial formative age in my development.



My mother was expecting her fifth child. A couple of days later she sent me to a nearby farm to get some eggs. I learned upon my return home that she gave birth to Joyce (Gioconda in Italian) my youngest sister. Mother had now her hands full. Five children. A small loft. An elderly, ailing husband. A newly met son as ailing as her husband. A brand new baby. One needs a lot of faith to cope with such a situation. Mother had that, but, in

addition, she also had lots of courage, resourcefulness, ambition, and vision.

She had a neighbor deliver me to a local doctor, who quickly realized that my ear needed immediate attention of specialists at a hospital in the provincial capital of Udine. Within a week, mother triggered the help of bureaucrats at Marano City Hall to have me dispatched to the hospital. My admission lasted three months. I underwent a major ear operation which cost my right hearing. It also cost me an entire school year.

The Miracle of Sister Josephine

As I recovered from the operation, I was briefly enrolled as a fourth grader in the Marano public school. The teacher wrote me off as a lost cause.

The next year, my enterprising mother managed to have me enrolled at a nun run boarding school for orphans in a town very near the hospital where I was recently recovered. Because of my age, I was admitted to the fifth grade run by Sister Josephine.

Allow me to pause.....

I went to school for the next twenty years. I experienced hundreds of teachers, including a Nobel prize winner. Absolutely no one had a more profound impact upon my future intellectual and emotional development as did Sister Josephine. She took a youngster who could not read, write, speak Italian, did not have the rudiments of civilization, did not even have proper table or hygienic manners, and converted him to a citizen of the civilized world. To this day, I am amazed and puzzled by what really made Sister Josephine such a terrific teacher.

Never saw a smile from her. She had such an austere look. She never raised her voice either. She was probably in her fifties.



I venture to guess that her first attribute was faith in God. But her very next attribute was faith in the kids she had in her care. Her patience was infinite. She transmitted discipline by her stern look.

She not only instilled in me the basics of reading, writing, arithmetic, history, geography, rudiment of science, but also a lifelong love for learning, as well as respect for other people and civilizations.

To this day, I still do my mental arithmetic by the mnemonic aids she thought me. I even learned a secret method for simply checking the accuracy of long multiplications and divisions.

I do not know where Sister Josephine is buried. I am unable to pay my respects here. I will be looking for her in the next world, where I plan to give her the big kiss and hugs of thanks that I was not able to convey to her on this earth. I do believe in miracles. She was a clear proof that they do happen.

On to Boarding Schools for Refugees

Post war Italy supported a string of boarding schools designed to host young refugees from communist Yugoslavia. These schools were hotbeds of anti-Communist fervor organized along para military lines. They were training the kids to liberate their homelands with "flaming swords" and such. My mother had me enrolled in one such school in the northern town of Gorizia. Except for occasional vacations back home in Marano, I spent sixth to ninth grade in Gorizia. Our boarding school was farming the kids to the various public schools in the area, and then collecting them in the evening with supervised, organized trips back "home". We were marched in formation to and from school shouting slogans and singing patriotic songs.

Imbued with the patriotic fervor doled out at the boarding school, I became fascinated with the "glorious" history of Italian fascism. Mussolini, the defunct fascist dictator, became my hero. I managed to get a medal with his image and pin it behind my lapel.

I began to skip some classes and run to the local headquarters of the Movimento Sociale Italiano (MSI), the neo-fascist group of the times. Before long, I was appointed the leader of its youth movement in Gorizia. I also became the political leader in my boarding school.

I was only thirteen-fourteen years old. Those were heady days. For the next year and a half I became the most influential person in my boarding school. Grownups outside the school were seeking my advice on how to mobilize the youth for the next election cycle, or public demonstration.

Eventually the director of the boarding school received a complaint about my truancy. I was placed in the equivalent of solitary confinement for two weeks and forbidden from ever again engaging in politics.

In spite of the distractions, my grades were always decent enough to keep my mother proud. She held me up as an example of excellence to my other siblings. I even made some pocket money tutoring other students in my classes.

Born and raised on an island with a long tradition of seafaring, my ultimate career goal was becoming an officer in the merchant marine. To become a candidate, one had to be admitted to a five year marine management program at the *Istituto Nautico di Trieste*. The Institute administered a test to eighth graders prior to admission.

I received the shock of my life when I took and failed the test. The director of my boarding school was equally shocked. What a humiliation!

To add insult to injury, my best friend Bruno took the same test a couple of weeks later and PASSED. Unbelievable. He sat next to me in most classes and shamelessly copied from my work. I spent one more year in the boarding school. It was a deflating experience.

Time to Regroup

Stepfather Ottorino passed away in 1954. Mother was widowed again with five kids scattered across various boarding schools. She had to take stock of her new circumstances. Marano was a small, relatively poor town. It subsisted on fishing and its sales throughout the region. She had family support from the Ottorino side of the family. She was also the beneficiary of some small government subsidy as a refugee from Communism. In addition, she was the recipient of clothing and food donations from American governmental and non-governmental agencies triggered primarily by the Marshall Plan.

Having successively scattered five children across various boarding schools, she saw no long term future for them in Marano. She began to plan the evacuation of the whole family to Genoa, a large seaport in northwest Italy.

With savings she judiciously accumulated while Ottorino was working, plus some compensation she received from the Italian government for losses suffered during the war (*Danni di Guerra*), she scraped enough to pay for the trip for the whole family, including rent for the first couple of months. This was a courageous step. Genoa is a large, strange, unforgiving city. The locals speak an incomprehensible dialect. They view strangers with suspicion. This widow, born and raised in small towns, with five kids in tow was taking a big chance.

As it turned out, she rented an apartment in the far suburb which had all the plumbing in place... but no running water. That was a surprise! We had to fetch the water in buckets from a public fountain a couple of hundred yards away.

My older brother Nicholas landed a job as a seaman on a small oil tanker through some Sansegoti who were already employed by that shipping company.

I was sixteen. That was working age. The challenge for my mother was to get a job for me. On her own, she decided to visit the personnel manager for Italian Lines, the largest shipping company in Italy. She managed to get an interview in downtown Genoa. His office was on a third floor.

Upon meeting the gentleman, she proceeded to unburden herself with the sad story of her life: widowed twice, five children, a refugee from Yugoslavia, needing urgently to employ her sons to pay for next month's rent.

The gentleman listened politely. "I understand your plight, but I have hundreds of applications on my desk," he continued, "We do not have any immediate openings for your son. We will call on you as soon as..." The poor fellow did not know my mother.

With tears streaming down her cheeks, she interrupted him: "I am a poor widow. You must help me. If you do not take my son, I have no choice but to jump out of this window...."

"No, no, no Signora. Per l'amore di Dio. Non c'e bisogno di commettere un pazzia!". "Please calm down and go home. You will hear from me soon."

That was a Friday afternoon. Monday morning a telegram arrived to our home for me to show up for a physical for immediate embarkation on a mixed passenger/cargo ship named the *Amerigo Vespucci*.

I owed one to mom.

Life as a Seaman: The Amerigo Vespucci

The Amerigo Vespucci was a relatively small ship built in 1942 designed to transport troops and material to Africa in support of Italy's war effort in that theater. The ship was scuttled in 1944 by the Germans in the port of Genoa to deny its use to the advancing Allied Armies.

The new Italian government salvaged the ship three years later, and turned it over to its fully owned shipping company, the Italian Line. The ship had two large holds, one fore the other stern. The holds



were surrounded by chicken wire which separated them from multistoried dormitories. Men around the forward hold; women and children around the stern hold. Public latrines were serving the passengers.

The ship was used to transport poor emigrants, mostly from southern Italy, to Chile. On the way back, it carried copper from Chile and bananas from Ecuador to Spain and Italy. The round trip lasted about two months. I made six such round trips in my first tour of duty with Italian Line.

Each trip began in Genoa and wound up in Valparaiso, Chile, with stops in Naples, Barcelona, Canary Islands, Cuaraçao, La Guaira (Venezuela), Barranquilla (Colombia), Panama Canal, Cartagena



(Colombia), Guayaquil (Ecuador), Callao (Peru), Iquique, Antofagasta, and finally, Valparaiso in Chile. As soon as we crossed Gibraltar and entered the Atlantic Ocean, the sea got considerably rougher.

My assignment: clean up after the people who got seasick.

My equipment: one bucket of saw dust, one bucket for storing the detritus, a broom, a dustbin. I was to patrol the hallways and dormitories looking for soiled floor or following people who were making the most revolting noises. All of this torture while the sickest of

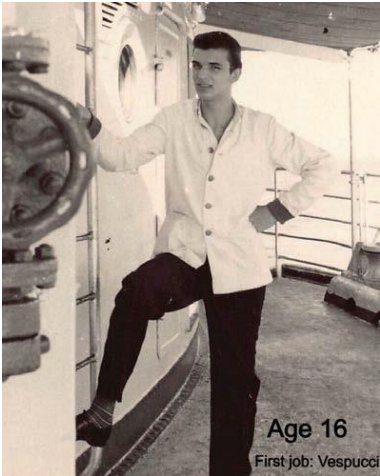
them all was: ME.

I would lay down for a minute wherever I could. As sick as a dog, I could only dream of land. I also got to reflect on my failed, foolish notion of becoming an officer on the ship. Little did I realize that

on this horrible ship experience I was truly building my character, and my resilience to cope with much more that life had in store for me.

If the seas were not too rough, I was responsible for hosing down public latrines and the public dormitories. The smell was horrible because many of the migrants carried some native food, fearful that they would not get properly fed on the ship. The smell of cheese, in particular, was overpowering. For years afterward, I could not stand the look or smell of any cheese.

Once we got to Central America, we stopped every day at some port. The seas were generally calm. When we crossed the Panama Canal, we were coasting along, hugging the western side of South



America. The Pacific Ocean was truly pacific. By that time, I was hardened to the smells emanating from the holds, I probably smelled pretty cheesy myself.

Although sea sickness was no longer a problem, we picked up another pest: an infestation of prostitutes. Women were coming on board in one port, getting off at the next port, and then reversing their presence on the return voyage. They were brazen. They would invade the crew's quarters and seek business all night long. The crew's quarters consisted of three or four double bunks containing a total of six to eight crews. What a racket! There was no respite at night.

At sixteen I was largely innocent. There was no room for timid souls on the Amerigo Vespucci.

I learned on the very first trip that everybody was rounding up the meager mariner salaries by smuggling sundry goods from Italy to the Americas. By the second trip, I had purchased a supply of faux jewelry, cigarettes, silk scarfs which I smuggled onto the ship and generally hid behind air vents and other false ceilings. When the ship arrived into some South American port, we were surrounded by local smugglers on small boats. I haggled over prices. Upon agreement, I lowered the goods into the tiny boats. The buyers simply tied the requisite number of dollars to the bottom of the rope which we rapidly retrieved. On to haggling with the next boat.

All things considered, the smuggling business was pretty routine. All participants were reasonably honest with each other. I do not remember any disputes about completing either side of the transaction. The main concern was being caught by the harbor police in Venezuela. The policemen,

with Nazi like hats, and humongous pistols strapped to their side, boarded the ship in search of contraband goods. They removed vents and turned our bed bunks upside down. I was never caught. I heard that the local jails were horrendous dungeons. Happiness for us was leaving Venezuela safe and sound. (Today's Venezuela is not much better, or safer. A curse seems to be tormenting this beautiful, rich country).

When the ship finally reached Valparaiso, we disgorged all the emigrants. On my second trip, I visited the nearby capital city of Santiago. I followed some of the emigrants. I was curious as to where they really went. To my surprise, their final destination was under bleachers in a soccer stadium. They were setting up tents, pots, pans, stringing ropes to dry clothes. Noisy children crawled all over the place.

The grown-ups looked bewildered. They insisted that I took their pictures and bring their plight and mistreatment at the hands of the Chileans to the attention of the Italian press and government. I was too unsophisticated to understand what motivated these migrants to leave their homeland, what were they expecting, or were they promised to find, in Chile, and by whom. Nevertheless, a shipmate submitted an article and pictures to a newspaper in Genoa. I am unaware of the final impact, if any, from the publication of that article.

My tour on the Vespucci ended on the sixth trip. I was given one month off pending my assignment to the next tour.

Destination America

My enterprising mother realized that the future for her children resided in America. She was aware of the new Eisenhower quota for refugees from Communism. When I got home, she was already working the lengthy paperwork necessary for acquiring the immigrant visa for her family.

She used relationships to secure a US sponsor. That was just one of the many requirements for admission to America. She lined up the support of the Catholic Welfare Charities to pay for the transatlantic trip. She even managed to get some cash from her father as an advance against her inheritance.

Her only remaining worries were concern for all her children passing the stringent physicals required for the visa. Particularly worrisome to her was that her oldest boys were exposed to a father who died of tuberculosis. She kept dragging us to doctors for checkups to confirm that we were not carrying the deadly virus.

Before the visa application process was completed, I was assigned my next tour of duty: "boss boy", i.e. dishwasher, on the "Andrea Doria", the prime, transatlantic, luxury liner of the Italian Lines.

As a dishwasher, I was responsible for clearing incoming dishes of leftovers, place them on a conveyor which carry them across a tunnel not too dissimilar from an automated car wash, retrieve them from the far end, and place them up on mobile stacked shelves. I was processing thousands of dishes per day. I did my best to hide the many dishes I broke as I struggled to keep incoming dirty dishes from overflowing the staging area in front of the dishwasher.



The Andrea Doria was designed for speed and luxury. It fared poorly in terms of stability when confronted with the ferocity of North Atlantic sea route. It heaved, swayed, and surged, at times violently, during most of the wintry passages. One had to hang on to any rail for dear life. Everything had to be secured.

My crew cabin was located near the ship bow. When the ship hit big waves, the prow would surge 30 to 40 feet up in the air. On its way down it trembled and roared and creaked and made sounds as if it could break apart at any time. I had to tie myself securely to the bunk bed. Not feeling secure enough, I was gripping the bunk rails for extra safety.

When I returned home, mother advised that my family was granted the visa for America. The trip was scheduled for the following month. The entire family had to submit to a physical prior to departure.

I immediately sent a telegram to Italian Line: Romolo Mattesich is emigrating to America. He regrets



to inform you that he is unable to complete his tour on the Andrea Doria.

Six months later, the Andrea Doria collided with the Stockholm off New York harbor. It sank with the loss of 54 people. As I was already a resident of nearby Hoboken, New Jersey, I was able to join the crew at the memorial mass at St Patrick Cathedral. I took the opportunity to thank God he got me to the right side of the Atlantic Ocean just in time.

New Roots in America

Absorbing a New Culture

Our family first permanent address was a fifth floor, walk-up tenement building with a noisy bar at street level at 200 Grand Street, Hoboken, New Jersey. Our apartment was on the fifth floor.

The year was 1956. Hoboken was a working class neighborhood. Most of my compatriots had settled in this town. They setup their own bars and clubs. They formed a closely knit community.

The family bought our first used car for a few hundred dollars. It was a four door, 1948 DeSoto, a brand long since extinct. Being the only one with a driver license, I became the "designated driver".

On the first weekend, I took the family on a joy ride to the Jersey Shore. Near the destination, I collided with a taxicab: the front end was slightly damaged. A witness stopped by and gave me his business card. I was startled, as well as shook up.

"I saw everything. Give me a call if you need to produce a witness," he said.

He sped away. A week later, I filed an insurance report. Producing a witness helped assign the blame to the cab driver. My insurance went up, nevertheless. It cost me one week's pay.

The DeSoto stayed with a family for a couple of years. Its only serious defect was a tendency toward overheating when in stop and go traffic. More on this problem later...

The older generation, including my mother, tended to congregate amongst themselves by communicating in their native dialect, attending the same church, frequenting the same social club.

They also continued to maintain a strong emotional commitment to their church and priest in Sansego. The church and the cemetery in Sansego are the best maintained institutions thanks to the generous remittances of loyal expatriates.

That immigrant generation never quite mastered English, yet they considered themselves to be proud Americans.

Children of Sansegoti very quickly *Americanized*. The inevitable process of loosening ties to the homeland of their fathers began as soon as they went to school and made local friends. [Today's legal wrangling about comprehensive immigration reform requiring, among other things, that immigrants learn English would disqualify my own mother. Her children and grandchildren absorbed the new culture so fast that they could barely communicate with her.]

Indeed, their children were eager to adopt their friends' culture and value system, much to the chagrin of their parents.

The apartment was designed like a train: bathroom; kitchen; living room with pull out sofas acting as sleeping quarters for sisters Antonietta (13) and Joyce (10); bedroom for mother Anita (46); boys bedroom for Nicholas (22), Rom (19), and Ricky (16). Not much privacy for anyone. It was a readymade situation for family tension as the youngsters grew into adulthood in tight quarters.

The girls were soon making friends in a neighborhood which, at that time, was unsavory. Mother expected the two oldest boys to act as surrogate fathers and exercise discipline. The only problem was that mother was not quite adjusted to the notion that youngsters in America were a lot more emancipated than youngsters from the very small towns we hailed from. She probably forgot that she herself was rebellious and a relatively free spirit by the standards of her youth. It was a real cultural shock for her.

Ugly episodes ensued. Hurts were deep. It took generations before everybody matured enough to heal the wounds and foster resumption of cordial relationships.

During this period, an acquaintance working on an upscale Italian restaurant in midtown Manhattan, offered to sponsor me as a waiter. I had a poor command of English at that time. I was offered the job. Customers were requesting fancy drinks I never heard of. I frequently brought the wrong one. I lasted exactly one day.

After a few dead end jobs in small factories around Hoboken, at 85c per hour, the minimum wage in early 1956, I eventually landed a unionized job at a company called Lever Brothers. The pay: \$2.50 per hour. WOW!

Lever Brothers was a large, multinational company. It produced soap, detergent, margarine, and whip cream. Production was continuous, requiring a 24x7 operation. Being a junior on the seniority scale, I was usually assigned the most undesirable shifts. That meant the so called "graveyard shift": midnight to eight AM. Sleeping during the day was difficult mostly because of the

lack of privacy in our apartment. The two days off were worse because it was virtually impossible to switch sleeping patterns during the week.

I was also assigned some nightmarish tasks. Detergent powder was mixed in giant, five story high tanks. The inner walls had to be scraped clean every couple of weeks. I was included in a team whose job it was to do the scraping. Armed with scrapers, tethered by a rope, protected by a hat and a flimsy paper mask, we rappelled down the wall.

The temperature inside the tank was in excess of ninety degrees. The toxic dust storm we created was blinding and suffocating. By the time we reached the bottom of the tank, we were soaking wet, gasping for air covered with soot from head to toe. Were it Halloween, we could scare the kids out of their wits.

It was my lot to clean all sorts of tanks. However, what turned out to be the most significant task was acting as a cog on a conveyor belt carrying detergent boxes. The detergent, upon mixing in those giant mixing tanks, was funneled to a machine which prepared a carton, filled with the right amount of detergent, sealed it, and placed it on a fast moving conveyor at the rate of several dozen cartons per minute. I stood at the end of the conveyor.

My task was to intercept the fast moving cartons, place them in a shipping container, six at the time, a total of twenty four cartons per shipping container. Upon completing a container, I slid it down a chute where another machine sealed the flaps and sent it on for warehousing. I had to prepare very quickly the next container, grab the next batch of six cartons, place them in the container... and so on for EIGHT hours.

My body was there, but my mind was not. It was a way to escape the numbing monotony of the job. I tended to drift into daydreaming. If I wandered too much, I would discover with horror that the inexorable march of detergent cartons led them to pile up all over the floor. I had to press an alarm button which caused a loud bell to go off and the whole production line to stop. That created a bedlam on the floor. Every lost minute of production was big money. Any stop, cost an additional five minutes to restart and resynchronize the whole system.

Production failures immediately attracted the attention of irate supervisors. I learned the English language as expressed on the factory floor.

Apparently I did not lose control of production frequently enough to be fired. Indeed, I lasted more than a year. But standing up for long periods of time with legs pressed against a conveyor belt created another problem: varicose veins. This development turned out to be fateful later in life.

The Underground Factory

After a couple of years in Hoboken, the family scraped enough money to purchase an old two story home in North Bergen, New Jersey. It was a working-class neighborhood, but with a slightly better reputation. We lived on the first floor and rented the second one. There was a full basement.

Older brother Nicholas (Nick) was a tailor by training. He sought employment in garments factories. Moving to North Bergen opened the possibility of opening his own factory... in the basement. Soon enough, we were building a mini factory in a corner of the basement: two sewing machines, one blind stitching machine, an ironing board, and a couple of racks to store garments. Two industrial grade lights provided great illumination for the operators of the sewing machines.

This was a family operation. In addition to brother Nick, his Italian wife Wally, sister Joyce, her husband Larry, occasionally younger brother Rick, who was enrolled at nearby Stevens Institute of Technology studying mechanical engineering. We were proud to support the youngest brother as the first college graduate in the family.

Our source of work came from the Manhattan garment district on 37th Street. Once or twice a week we removed the back seat from the DeSoto, loaded it to the top with 60-70 polyester jackets and coats, and headed for Manhattan, about four or five miles away, over one of the most congested roadways in America. I was the designated driver. Brother Nick was the passenger. We were going there in the afternoon, when the rush hour traffic was going in the opposite direction.



As we approached the Lincoln Tunnel, traffic was always bumper to bumper, stop and go. The tunnel itself, about one and a half mile long, was subject to accidents and congestion particularly on the Manhattan side. Loaded, heavy traffic, no license to produce the goods, an overheating car: we faced a huge fine if the car broke down inside the Lincoln Tunnel. When we were forced to stop, I had to make some agonizing decisions: would the car stay cooler if I shut off the engine? Or would it make matters worse? I always

approached the tunnel with great apprehension.

Once we reached Manhattan, it was only a few blocks to a bustling 37th street, the notorious garments district. Trucks parked along the street, were loaded and unloaded by frenzied workers. Taxi cabs, private vehicles, police cars whizzed by. Drivers were rude, impatient, and so in a hurry. Horns blared as if leaning on them would, or could, make any difference on the driver in front. The sidewalks were crowded with people, pushing carts loaded with garments, shoving, screaming. Empty carts were ridden cowboy style at high speed. Showing the middle finger was the most common way of greeting people. In this bedlam, I was trying to find a spot where I could safely park for a few seconds.

It could take up to three turns around the block to accomplish our mission. On first round, I would drop off Nick. He would go up to the 30th or so floor. Pick up two empty racks. He came down and positioned himself at some spot where he thought I could pull in on my completing the first round. I usually went in at some angle. We rushed to empty the car on two racks. He pulled both of them: it took some skill. I pulled off before some policeman or some other crazy character screamed that I was parked illegally or blocked someone's loading door.

I went slowly around the block again, giving Nick enough time to rush the two carts upstairs, get the units counted, get a receipt, and return downstairs to intercept me on my third pass. This routine went on for about a year.

My fateful DeSoto never let me down.... or blew the gasket in the middle of the Lincoln Tunnel, reinforcing my belief that miracles do happen.

Brother Nick went on to open and close real garment factories in New Jersey. Hounded by unions which were imposing ever higher costs on his work force, he eventually moved his operation to the Dominican Republic.

Vietnam Calling!

The year was 1960. The Vietnam War was getting serious. The draft was in place.

I was attending a night program for electronic technicians at the nearby Stevens Institute of Technology. I was also engaged to my sweetheart from Sansego, when I received a notice from the local draft board to show up for induction testing at a National Guard Armory in Newark.

That notice was received like a bomb, almost as shattering as the real bombs that rogue airplanes dropped on Sansego.

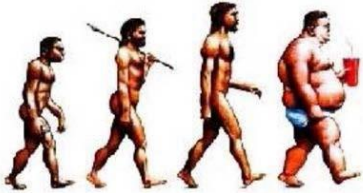
At the appointed date and time, very early in the morning, I showed up at the Armory together with at least 100 other youngsters. We signed up against a prepared roster. A form had to be filled out. A tough looking character barked out the instructions:

1. Disrobe completely.
2. Place all your personal belongings in a bag tagged with your name.
3. Take a small clipboard with a form on it. Write your name and social security number at the top.
4. You have to line up in alphabetical order.

He then ushered us, single line, into a very large, cavernous hall. There were at least a dozen stations lined up against the wall. Each station was staffed by a couple of people. I looked at the line of fellow inductees. It was a sight to behold. I wish I could have taken a picture of the scene. The closest visual that I can offer is the popular graphic about the evolution of man.

Tall, short, obese, thin, hairy chests, long hair, bald, black, white, and every other color in between.

Tattoos in the weirdest places. All naked. Were we supposed to be an army? I believe that diversity is an American strength. This scene introduced me to a very different perspective of humanity.



We moved from station to station. At each stop, someone was examining a different part of your anatomy: Ears? Ok.

Throat? Ok. Eyes? Ok. One person was doing the examining; the other was making a notation on both the relevant part of the form we were carrying as well as some master form located on the table. The most humiliating part was at the station where the inductee is asked to bend over so that the examiner could probe the most private orifice. The US Army was infringing upon my dignity prior to risking my life. I was definitely not hero material.

At each station, my form was checked as passed or failed on the specific attribute being examined. I noticed that some inductees were failing some tests. As I approached the last station, all my tests turned out ok. I had visions of the jungles of Vietnam beckoning.

"But doctor", I pleaded. " Did you notice my varicose veins? How can I march? "

He took a closer look at my legs. "Oh, you're right!" he averred.

Rejected. My new draft status became 4F.

To this day, I wonder whether being a cog on the conveyor belt saved my life, or kept me from some catastrophic experience in Vietnam.

United Airlines is First on Takeoff with Automation

As soon as I graduated from the electronic training program of Stevens Tech, I was hired by a technical company called "Teleregister," a spinoff of Western Union, to work on a new electronic reservation system for United Airlines.

In the fifties, the reservation systems of the major airlines were very primitive. Passengers were booking a flight by calling into some central location where the airlines kept track of flights and reservations on giant chalk boards. Each new booking was stroked as a reservation under a particular flight and date.

By 1961, Philips Telecommunications of the Netherlands designed the first nationwide electronic reservation system for United Airlines, the largest US carrier at that time. Philips engaged Teleregister of Stamford, Connecticut to install and operate the new system for United. Teleregister was known for building and operating large electromechanical boards in stock brokers nationwide. These boards



displayed real time information on trading activities at New York and American Stock Exchanges.

As the sounds of thousands of rotating drums displaying digits were dancing around to locate the correct one combined with other normal sounds of a busy stock broker office, one could tell the level of stock market activity by just closing the eyes and listening to the cacophony.

The new system for United Airlines was comprised of a Denver based central computer. A dozen or so reservation and ticketing centers located throughout the United States were receiving customer calls, entering booking requests using specialized agent terminals. These requests were posted

against the inventory of seats maintained at the Denver computer via a dedicated communications network designed by Philips and operated by Teleregister. My initial assignment was to install, operate, and maintain these systems in the main Chicago reservation office, as well as at the United terminals at O'Hare, Midway, and Mitchell (Milwaukee) Airports.

Once the Chicago operation was fully functional, I was promoted and transferred to Washington, DC. The main United reservation office was located at a remote hangar of the Washington National Airport.

From there, I also installed and maintained the systems at Baltimore International and at the new Dulles Airports.

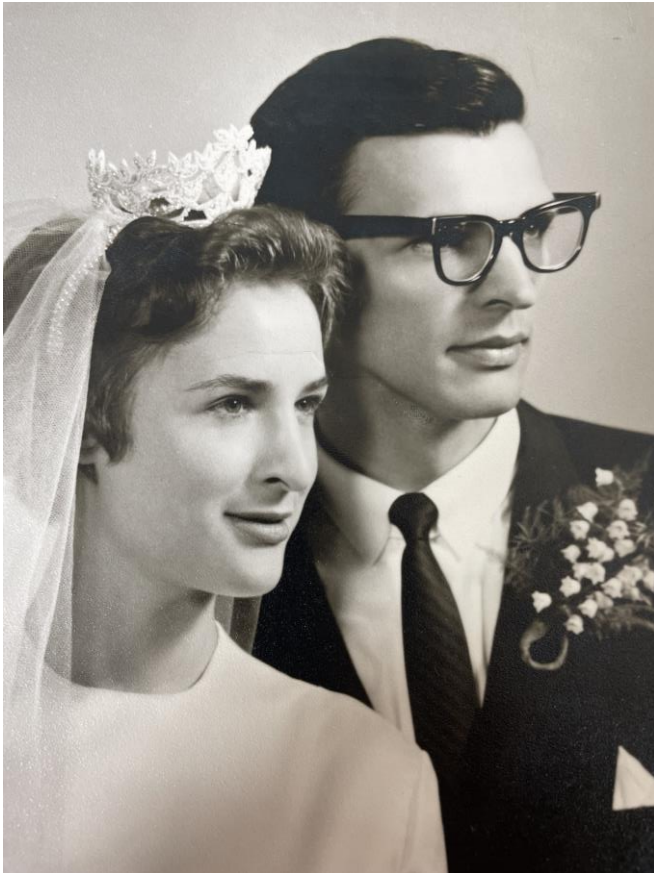
President Kennedy was greeting foreign dignitaries right next to our Washington National hangar.



I saw him up close several times. For a boy from Sansego, those were exhilarating experiences.

Home at the University of Virginia

I married Grace, my sweetheart from Sansego, and departed for Chicago. Shown here is the formal view of that event. The date was December 31, 1960.



uninitiated, that was the original "Volkswagen."]

When in Washington, I enrolled at the extension center of the University of Virginia in Arlington where I took some college level courses in mathematics in the evening. I also managed to squeeze one math course in Chicago where I attended the Illinois Institute of Technology.

I found calculus to be a fascinating subject. My wife encouraged me to enroll full time at the main campus of the University of Virginia in Charlottesville. At that time, I was twenty six year old. We already had our first child: Denise. We had \$10,000 in savings, lived in a roach infested apartment in Fairfax County, and owned my first beloved "beetle". [For the

Applying to the University founded by none other than Thomas Jefferson was a challenge. First of all, I had no formal High School diploma. Second, I had to go through an SAT like test. Third, I needed some financial assistance to maintain a family on campus.



Somehow I managed to convince an admission counselor that my training at the Stevens Institute of Technology was sort of equivalent to a High School education. My performance at the Illinois Institute of Technology and the University of Virginia extension further established that I could perform at college level.

As to financial aid, the counselor promised a loan plus assistance in securing accommodation at the University owned married student apartments off campus. I could also expect to get some part time work for myself and my wife.

The one remaining issue was taking the College Entrance test. I took it. The results were mixed. The feedback was that the English component was very good, but the math portion was weak for a would-be engineering student. The counselor warned me that in Charlottesville I would face the competition of the "cream" of students from the entire state of Virginia.

I knew why I failed to impress her on the math component. I knew how to fix it. I reassured her that I will have absolutely no problem with math. All I needed was a chance to prove it. Within a week or so, I received a letter from the Dean of Engineering advising me that I was accepted as a "conditional" student, subject to performance in the first semester.

It was no problem breezing through the first semester. The Dean sent a letter congratulating me for making the Dean's List and converted my status from conditional to full time student.

I was not the smartest student at the University of Virginia. I was, however, the most diligent and disciplined. Coming from the hard scrabble background with a family to feed, I had plenty of stimulation to hurry up and graduate.

My other goal was to gun for top ranking upon graduation to gain admission to a top notch graduate school. I got a handle on how to score well on math and engineering courses. The reward was that I graduated number one in the engineering school, and earned a NASA fellowship at the Massachusetts Institute of Technology.

In my eagerness to go for the grade, I chose courses with strong emphasis on math heavy courses which allowed me to control the grade. More liberal courses generally depended on the subjectivity of the professor, making the final outcome dicey. In retrospect, I regret that short changing the liberal courses deprived me of a broader perspective on life, and better preparation for leadership opportunities to come.

I spent three years at the University of Virginia, 1963 to 1966. The school was segregated at that time. There were no blacks, or women, admitted to the main campus. The medical college associated with the University had segregated clinics, and even segregated water fountains. It was common knowledge that Thomas Jefferson himself was a major slave owner and slave abuser himself. The joke around the campus was that half of the black population in Charlottesville was made up of Jefferson's descendants.

In spite of its dark history, the University was a beautiful school and a great social experience. I was welcomed and inducted into several honorary societies: the Raven Society (University Leadership), Tau Beta Pi (Engineering), Eta Kappa Nu (Electrical Engineering), Sigma Xi (Scientific).



My family was assigned a beautiful University owned apartment. My wife got a part time job at the University library. I worked a few hours at an on-campus convenience store. Altogether we managed to leave the school with positive cash in our bank account.

The 60's: Formative Age for This Country and This Author

The 60's were a turbulent period in our history. They were bracketed at one end by the Cuban missile crisis (1962), and at the other end by Americans landing on the moon (1969). In between, the civil right movement changed the trajectory of endemic discrimination against blacks. The movement contributed to, or was affected by, major convulsive events like the assassination of John Kennedy, Robert Kennedy, Martin Luther King, several civil rights activists, the burning of major cities like Newark, the increasingly violent war in Vietnam, its counteraction on the streets of cities and campuses across the country. It felt like the whole country was perched on the edge of a volcano about to explode. [The Beatles and Elvis Presley's phenomenon supplied the rhythms and cultural beats accompanying this maelstrom.]

As a new immigrant, I was proud of, and thankful to President Eisenhower. He was a war hero. He made it possible for my family to fulfill its dream in America. Like most Americans, I subscribed enthusiastically to the slogan of "I like Ike."

Along came a young, charismatic, smart, Catholic politician, supported by a glamorous family. He was also a war hero. Seeking the presidency was a more conventional politician without much reputation for integrity. The Kennedy versus Nixon race fired us all up with a quasi religious fervor in support of Kennedy.

During the campaign, while I was visiting my fiancé's home in Astoria, a suburb of New York, I learned that a pro Nixon rally was being held at a theater around the corner from her home. I quickly prepared a crude sign with handwritten message: "TRICKY DICKY GO HOME!" I mounted it on a broom stick. The fiancée and I proceeded to position ourselves at the front entrance to the theater where Nixon was expected to speak.

Excitement built up as the crowd got larger and noisier in anticipation of Nixon's arrival. Security agents at the front door eyed me nervously. I was strategically positioned by the door. All of a sudden, I was jumped by a couple of big guys. They wrestled me to the ground and yanked my sign away. The fiancé came to my aid. By the time I realized what happened, I was standing *outside* the group of partisans crowding the front entrance to the theater.

The first political lesson I learned: Do not confront a hostile crowd with a provocative sign. Not wise.

I did not engage into political activism until much later in life.

It was distressful to learn that Cuba was turning itself into a communist satellite. Castro denied it. I knew Communism well enough to believe that the Cubans, bubbling with life, a boisterous, gregarious people would ever submit to the strictures of a dictatorship born and hatched in a far, cold country. It not only deprived people of their freedom, it sucked the oxygen out of their love for, and celebration of life. I was wrong. Not only was I wrong, I was amazed to see Cuban communism survive the demise of the Soviet empire.... and ten US presidents holding a gun in the form of an economic embargo on the regime's head.

The new Kennedy presidency fumbled early by allowing Cuban exiles to proceed with their ill-fated, quixotic Bay of Pigs invasion. The obvious failure of American resolve emboldened Castro and Khrushchev to position nuclear tipped intermediate missiles across various bases in Cuba.

When American intelligence confirmed the presence of the missiles ninety miles from our shores, Kennedy's moment of truth was at hand. Rejecting the advice of warmongering generals to bomb Cuba, he chose to impose a naval blockade on the island and confronted Khrushchev with an ultimatum: the US will intercept any further shipment of missiles to Cuba, and Russia had to dismantle and remove all missiles already there.

The world stood still.

All eyes were on Russian ships approaching the naval blockade. That was October 1962. I was working in Washington, just a couple of miles from the White House. Ground Zero.

That was the closest we ever came to nuclear Armageddon. I was concerned whether we were going to be around by Christmas time. The whole country was stacking up on canned food. Will the Russian ships try to force their way through the blockade?

"Breaking News!" on TV: Normal programming was interrupted to announce that Russian ships were turning back. What a relief!

Shortly thereafter the President announced that the Russians had agreed to turn the ships back. Furthermore, they agreed to remove all the missiles from Cuba and allow the Americans to monitor their shipment outward. In return, the Americans agreed to remove their missiles from Turkey.

Kennedy demonstrated true leadership. He also made sure he did not back Khrushchev into a corner where he had no choice but to fight. Kennedy redeemed himself from the Bay of Pigs fiasco. He was brilliant, courageous, wise, cool, and determined. He deserves a spot in their pantheon of saints venerated by the Sansegoti.... and certainly the gratitude of the American public.

Kennedy's assassination shortly thereafter was one of the most traumatic events of the twentieth century. It set the stage for a spasm of violence to follow, but it also cleared the way for the greatest progress in the advancement of social justice in generations. Civil rights and Medicare became reality under the leadership of Lyndon Johnson. This country became a lot more hospitable to blacks and seniors.

The other major legacy of President Kennedy was his call to the nation to land a man on the moon before the decade was over. Much of the stimulation was triggered by the perception that the Russians were ahead in science and missile technology. They did beat us in space by placing the first man, Yuri Gagarin, in orbit via the Sputnik satellite. That was 1957. Indeed, Kennedy made it a big issue in his campaign for the presidency.

Landing a man to the moon demanded a massive commitment of scientific, political, financial resources at the national level. The young National Aeronautics and Space Administration (NASA) was the agency charged with the task.

NASA mobilized thousands of engineers and scientists across the nation. It entered into numerous joint ventures with leading universities.

One of the ventures included sponsoring bright students to enter advanced studies in scientific and engineering fields in support of the moon project. NASA Fellowships were granted to such students. I was one of the lucky recipients.

MIT, the Research Factory



Upon graduation from the University, I received a NASA fellowship and was accepted to the graduate engineering school at MIT. The fellowship paid for all

expenses plus a modest stipend. But before leaving my beloved University of Virginia for MIT, I had one very important task to accomplish: become a US citizen. On April 11, 1965, I travelled with my family to the southernmost corner of Virginia for a citizenship ceremony feted by the local chapter of Daughters of the American Revolution. The event was captured in the article the local paper (see below) featuring my oath taking holding daughter Denise in my arm. That was one proud dad.



Upon graduation, I packed wife Grace and our two year old Denise in our trusty Volkswagen beetle and headed for Boston, Massachusetts. We settled in an apartment in the working class neighborhood of Watertown, about five miles from MIT, always following the meandering Charles River.

The MIT experience was like taking a cold shower. The campus community had the feel of an urban university. Most students appeared to be foreign nationals. They all commuted to school.

I learned quickly that while I graduated number one in the class at the University of Virginia, some of the foreign students graduated number one in their *country*. Competition for grades was, fortunately, less intense than at the University of Virginia where grading was based on a "curve": 10% A's, 25% B's, and so on. Original research, papers, presentations were a lot more important.

MIT's social environment was dismal: No frivolity, levity, social interactions. Most students retreated to their apartments after classes. No sense of belonging to a home away from home. I missed the University of Virginia (UVA) setting where camaraderie, social interactions, relaxed environment, extracurricular activities of all kind greatly enriched student life. A young student leaving the comfort of a home, will find Virginia a great transition to adulthood where he, and now *she*, can grow socially, emotionally, and academically in a much more pleasant and secure setting.

[Since the writing of this paragraph, my beloved UVA has become the poster child for sexual violence on American campuses. (*University of Virginia's Image Suffers After Campus Rape Report*, The New York Times, 11/25/2014.) This violence is allegedly centered on fraternities famous for hosting weekend binge drinking parties. A jarring note for a school treasuring its reputation *for being an island of scholarship, safety, honor codes and etiquette, set apart from, a grittier world, just as the university's founder, Thomas Jefferson, might have envisioned.*]

I spent one year at MIT studying electromagnetic theory, radiation, antennas. I was particularly fascinated by the mathematical elegance of Maxwell's equations and quantum physics which provide a common theoretical underpinning for these subjects. MIT was a powerhouse in this field.



Its famed MIT Radiation Lab was a leader in the development of the radar in WWII. Some of its alumni earned the Nobel Prize. They authored books which became the classic for generations of students.

MIT served as an introduction to the power of modern digital computing. Its work horse was a giant IBM 360 computer, affectionately known as "big iron." Students and researchers used big iron by submitting their programs in the form of boxfuls of punch cards. The campus was dotted with large rooms where people would spend many hours typing away on punch card machines. The racket was deafening. The boxes were delivered and logged in the receiving window of the computing center. The results of the program were retrieved the next day in the form of large, continuously rolling printouts.

My own thesis used big iron to solve some complex formulas which allowed exploring the surface of the moon by radar. It basically mapped the electromagnetic characteristics of the moon down to a depth of around four or five feet. The radio signal was designed to be emitted and received from a satellite orbiting the moon. The thesis earned me membership in The American Association for The Advancement of Science.

There was little formalized teaching at MIT. Students were tutored in their research. One major problem: my thesis advisor, a distinguished Chinese born scientist, retained such a heavy accent that I barely understood ten percent of what he was saying. I found myself nodding a "yes" without really knowing what he wanted or suggested. Fortunately, he coauthored a classical book in electromagnetic theory which became my main textbook. It was written in excellent, if terse, English.

"Big iron" was my real teacher. I became enamored with the power of computers and programming. The introduction of personal computers, ever expanding in power, and diminishing in size and cost, turned into a love affair for the rest of my life. These memories are written on an iPad with access to the "cloud". In my hands, I hold more computing power than a floor full of big iron.

After earning my Master Degree, I toyed with moving on to a doctorate. Upon some reflection, I decided to accept an offer from Bell Telephone Laboratories (BTL or Bell Labs), one of the most prestigious research institutions in the field of telecommunications. The lure of a salary and a business career were too compelling.

Bell System – A World of Its Own

Genesis of a Monopoly

In 1967, eighty percent of basic telephony business in the United States was managed by a monopoly known informally as the "Bell System," a conglomeration of 24 companies. AT&T, headquartered at 195 Broadway, New York, adjacent to the future site of the ill-fated World Trade Center towers, was the parent company. The Bell System was the largest employer on earth with a million employees on its payroll.

Twenty-two subsidiary companies were responsible for the provision and operations of telephony in specific regions of the country. Known as "Bell Operating Companies", or BOC's, they were usually named Bell plus the name of the region they were serving, e.g., Illinois Bell, New Jersey Bell, South Central Bell (Alabama, Mississippi, Louisiana, Kentucky, and Tennessee).

Three additional divisions of the Bell System were Bell Labs for research and development; Western Electric for manufacturing of all components of the telephone system; and the AT&T Long Lines Department which provided and operated the long distance lines connecting the BOC's to each other, and to the rest of the world.

The Bell name was inherited from its founder, Alexander Graham Bell, the alleged inventor of the telephone. Much like at the University of Virginia, where they venerate their founder, Thomas Jefferson, the Bell System had its own saint: Alexander Graham Bell.

The Italians claim that Bell acquired his original patent in 1876 fraudulently, and that the true inventor was a gentleman by the name of Antonio Meucci, who filed for a patent in 1871. This claim was documented on Italian history books. I remember distinctly when my beloved Sister Josephine made us all proud of the feats of Antonio Meucci.

My twenty-year career in the Bell System began at Bell Labs, at a modernistic building in Holmdel, New Jersey. Training at Bell Labs was superb. Graduate level training on the theory of communication and its application to telephony turned new engineers into real professionals, ready to tackle introduction of the next generation of technology into the US telecommunications network.

But first, a bit of the history. The genesis of the behemoth is in the 1876 patent filed by Alexander Bell. By next year, he commercialized his idea by forming a new company called Bell Telephone Company. Bell and his company became the subject of controversy. Meucci inspired lawsuits contested the validity of his patent. At the end of the day, the first Bell Company became the one million people strong Bell System. Meucci died a pauper in relative obscurity.

Sure enough, the first thing I learned at Bell Labs was that Meucci was a fake. Bell was the true inventor. Was Sister Josephine feeding us an Italian fantasy? I reviewed both patents. My take was that Meucci described a rudimentary telephone in very vague terms. Bell was far more specific about the engineering of a realistic telephone. Meucci had the right idea, but Bell had a workable model that correctly described the science behind a full telephonic connection. I vote for Bell but give Meucci credit for his vision. He should be given credit for leading Bell into a true discovery.

The culture inside the Bell System was insular. It was completely self-contained in terms of providing basic telephony to the American public. Furthermore, it encouraged hiring and promoting from the inside. A popular joke was that the system was like a pyramid: when the chairman fell off the top of the pyramid, all the outside world noticed was a new janitor coming in from the bottom. That janitor was probably related to someone already employed by the Bell System. It was actually company policy to give preferential treatment to relatives. Poster urged employees with the message: "If you are good enough to work for us, others in your family may be just as good."

Part of the training for new managers and engineers was to introduce them to all major operating tasks of the Bell System. There were two basic reasons:

- Exposing managers and engineers to the challenges of tasks performed in the "trenches" of the company. Engineers would be stimulated to respond and solve real problems existing in the field.
- Take over all critical functions in case of a strike or major disaster.

Formatted: Indent: Left: 0"

On the Line with Telephone Operators

Of the million employees, about half were women. They functioned primarily as operators and clerks. The highest position they could aspire to was that of a chief operator. There were two classes of



operators: long distance, and information. (There existed also a third class of operators. They placed all local calls until dialing came along. This class was largely extinct by the time I was hired.)

Long distance operators were lined up in front of long rows of switchboards in huge, cavernous halls. Each pair of parallel rows was bracketed at each end by perpendicularly positioned desks. At one end sat the chief operator. At the opposite end sat the

assistant chief operator. Individual operators wore headsets and furiously put up and took down cords from the switchboard as calls were being processed. They also had to punch requested destination numbers, start and stop times on key pad devices, listen to customer instructions as well as machines which computed the amount of change the customer had to deposit on public coin telephones before the call was allowed to proceed. That was a lot of activity with multiple calls to handle simultaneously.

On a visit to an operating room, I noticed one downcast lady sitting on a chair facing a stern looking chief operator. I asked my guide what was happening.

"Oh, she is just getting a *do better talk* from the chief operator," she answered matter of fact. The chief operator and her assistants were monitoring calls and performance on a rotating basis. Any wayward operator would get almost instantaneous feedback.

Further down the hall, we came upon a large room with operators sitting around circular tables. A carousel on top of the table contained directories for all listed phone numbers in the region served by this particular directory information center. A number of red lights on the wall indicated how

many callers were waiting to be served. The tension in the room was palpable when the number of red lights exceeded a predetermined acceptable level.

I was invited to take a few calls myself. I demurred. I was not eager to demonstrate my incompetence.

The task was simple, but the operator had to perform a mind-numbing monotonous task at blinding speed. She basically had to get the called name from a caller, rotate the carousel to fetch the appropriate directory, open up the book, locate very fast the correct page, get to the correct line on the page, and read back the destination number to the caller. Hopefully she understood the name correctly; otherwise she would need to have the caller spell out the name wasting precious seconds. Too many requests for spelling would earn her a *do better* talk from the supervisor. I recalled the time I was acting as a cog on a conveyor. My body was there, but my mind was free to wander. The information operator was not only performing a monotonous physical task, but she needed to stay alert and mentally focused at all times. That was a form of mental slavery. The task was perfect for replacement by automation...which did indeed happen shortly thereafter.

A few months after I was hired, the communication union called for a nationwide strike. Sure enough all engineers and management class employees were thrown into the fray. My assignment was as a long-distance operator in the same place I already visited.

The chief operator gave me no more than five minutes worth of training. "Go for it son. You will do just fine. Call me if you need me." That was the last time I saw her for the duration of the strike. It lasted about three weeks.

Working twelve hours shifts, I began clumsily. Many callers were startled to hear a male voice at the other end. It got more challenging when they heard a foreign accented male. I had great difficulty managing more than two or three calls at the same time.

New incoming calls were indicated by a flashing light on the board. I was to pick up a cord from the tray, plug it into a corresponding hole. This action would connect me to the caller.

"How can I help you?" I would cheerfully ask.

"I want to call Asbury Park (in New Jersey), number 555-9999", went one caller from a public phone I can still remember. I punched the number into the pricing machine, but I don't think I got the information right.

"Please deposit 25 cents," I blurted out.

The caller, surprised, realized that I was struggling. "But I always put 75 cents on this call", she added helpfully.

"Lady, this is a special deal. Take advantage of it," I responded ungratefully.

I had trouble getting the damn pricing machine to work correctly. I often simply invented the deposit required to initiate a call. Each call required the connection of a pair of cords: one to the incoming caller, the other to the destination party. When there was more than one call active at the time, the switchboard was soon covered like a vertically positioned spaghetti dish. It was easy to take down the wrong cord. To complicate matters, another light flashing signaled that a particular call was running on overtime. At that time, I was supposed to make another run on the pricing machine, interject myself on the call, demand an additional deposit, listen to the sound of coins dropping, and move on... or take down the call. I rarely got to charge for overtime.

I did get a respite on Mother's Day. Outgoing "trunks" were busy all day. Overwhelming traffic from home phones made it impossible to place any call originating from public coin phones until 9 pm. I learned earlier that heaviest traffic days on the United States network were Christmas and Mother's Day. The latter one was a surprise to me because there was no comparable holiday where I came from.

Mothers generally lived with their children under the same roof. I surmised that nomadic Americans felt guilty ignoring their parents year-round, except, of course, on these special holidays. As a result, mothers had an enormous impact on design of the US telephone network.

This in-depth experience as an operator turned out to be useful. On my return to Bell Labs, I



contributed design requirements for the development of new switchboards. The new design sported ZERO chords.

The operator experience was fascinating. The public was patient and appreciative, recognizing the Bell System gargantuan effort to keep a vital service going under the stress of a nationwide strike. As of this writing, most operators' jobs have succumbed to automation, or gone overseas.

Public Undignified demise of the public coin telephone. Downtown Manhattan, May 30, 2014

coin telephones have given way to mobile phones and the Internet. Transition into the new century has totally transformed the way we communicate.

Bell Labs: Driving the Transformation to an All-Digital Network

Bell Labs was 15,000 people strong when I joined it in 1967. It was the preeminent research and engineering institution in the world. Seven Nobel Prize laureates received the honor on Bell Labs



Bell Laboratories

projects. It claimed credit for 20,000 patents, including the original telephone patent of its founder Alexander Graham Bell. Major inventions flowing out of the "Labs" included radio astronomy, transistors, laser, the Unix operating System, the family of C programming languages, communication satellites, radar, microwave and fiber optic communication systems, digital switches, cellular technology.

Funding for the Labs was provided by a one percent of revenues contribution from each of the Bell Operating Companies.

It was organized along three major divisions: Research, Development, and Systems Engineering. My starting point was the Systems Engineering Division located in Holmdel, New Jersey. Engineers in this division were responsible for the design of the overall US telephone network and to guide its technological evolution. One major dragging anchor was that introduction of any new technology had to maintain compatibility with all existing systems currently in service, some of them were dating back to the turn of the century. This requirement caused a considerable drag on the network modernization process. The genesis of this requirement was legal impositions which regulated the monopoly granted to AT&T. All embedded capital had to be depreciated over a period of twenty to forty years. By way of comparison, today's technology has a life cycle of four years, or less.

Original telephony was developed using analog technology. In the late sixties, the Bell System began introducing digital technology in the US network. The sound of voice, which is analog in nature, was converted electrically into a collection of discrete ones and zeros for transmission over a digital line to a distant end where the process was reversed. The digital line consisted of four copper wires which carried 24 simultaneous conversations in digital format.

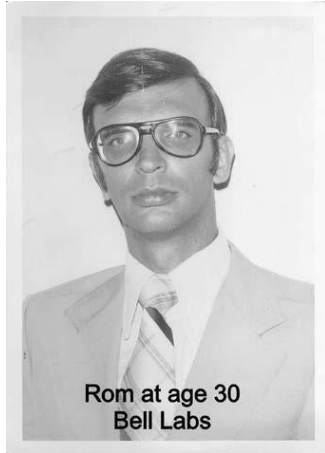
The main advantage of digital transmission was its ability to carry a clean signal for very long distances without deterioration in the quality of the voice signal. Eventually, as the cost of digital electronics dropped so did the cost of long-distance transmission. The first digital transmission system was called a *T1*. It is still in use today.

A normal call travels over the network to its final destination directed by machines called *switches*. These devices respond to the number dialed by the caller. It usually takes several switches to complete a call. In the sixties, all switches were using analog technology. If a call was incoming to the switch in digital format, it had to be converted to analog and back to digital upon exiting the switch. Every such conversion was costly; furthermore, it inserted quality degradation in a call.

The obvious solution was to replace analog switches with the functionally equivalent digital version. A system engineering team was formed to define and design the broad outlines of the first, high capacity digital switch. It was known as the 4ESS. This was essentially a large computer. The design was challenging because it had to interoperate with a variety of old analogical switches, including a mechanical monstrosity called the Panel Switch. There was only one such switch left in operation. It was located in Kansas City. It was amazing how much design effort went into making sure that the latest and greatest in switching technology could communicate with an antiquated relic of the thirties.

A new challenge introduced by digital switching arose when digital transmission like the T1 was married to a digital switch such as the 4ESS. The ones and zeros existed in time, as well as space. This required that the clocks controlling their generation were synchronized. If one clock generated a digital pulse at 10:34 AM, all other, interconnected clocks in the network had better mark time exactly the same way, or chaos would ensue. As member of the 4ESS team, I was assigned the task of exploring different solutions to the so-called network synchronization problem.

A number of possibilities were analyzed: Use highly precise atomic clocks, generally cesium or rubidium clocks, at each source of digital pulses. This was the most secure but expensive solution. Failure of one switch, or "node", would not have a catastrophic impact on the network.



Another alternative was the master-slave relationship. One clock would be declared the master, all other clocks in the network would mark time the same way. The problem with this approach was that it made the network vulnerable to an attack on the location of the master clock. Such attack could bring down the entire US network.

The third approach was to declare the network time as the average of all clocks. Thus, for instance, if one clock declared the time to be 10:34AM, and another clock declared it as 10:36AM, then the network clock must be 10:35AM. This was an economic but flaky solution. The mathematics demonstrated chain reaction possibilities that could also result in everybody being happy but the whole network could crash. At the end of the day, a hybrid solution was adopted.

Internet Knocking on Bell Labs Doors: ARPAnet

Circa 1968, a delegation from the US Department of Defense, the Advanced Research Program Agency (ARPA) came to visit us to introduce Bell Labs to a new paradigm in communication: Packet Switching.

This was an entirely new way of communicating. It was designed to facilitate computer to computer communication in a network connecting major US universities, using a specialized data network called ARPAnet. It was primarily intended for connecting advanced research centers in an inter universities network. ARPA was apparently interested in the new network because of its survivability in case of a nuclear attack, a great concern at that time.

In ordinary telephony, a communication channel is established between the caller and called party. That channel is reserved for the length of the call. When the parties hang up, the channel is reused by another call. In Packet Switching, the conversation is broken up into tiny packets, each packet is given a destination address, and sent on its merry way. Packets are transmitted independently of each other.

They can use different communication channels on the way to the same destination where they are reassembled in the right sequence and delivered as coherent voice or data message to the receiving party. Should any communication channel fail, the packet will be routed to any other available channel, hence the survivability.

We dismissed the new technology out of hand. We were already serving the defense department with our super secure AUTOVON, a parallel communications network for the US military. Although the network used largely standard Bell technology, its design included additional security such as hardening of major switching nodes to protect them from attack, extra redundancy against failures of any components, a nonhierarchical, self-healing, switching architecture, and priority of service protocol which better suited the command protocol of the military.

As for the ability to allow computer to computer communication, we were already building a digital network that could handle both ordinary voice and computer data.

The unspoken elephant in the room was the not-invented-here syndrome.

That was in my mind the most egregious failure of Bell Labs. We failed to recognize the power of the new technology. It became the underpinning of the Internet. It was not until the nineties that

the Bell System, what was left of it, finally took the technology seriously and hopped aboard the Internet bandwagon.

Today, all new telephony follows the Internet protocol. To be fair, Microsoft was also slow in climbing aboard the Internet bandwagon. Once they decided to join, they executed a marvelous turn around and quickly became a powerhouse in the Internet world.

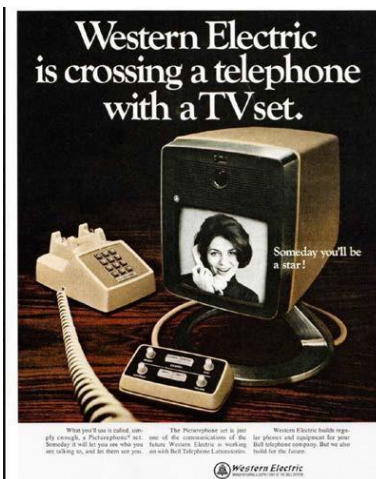
The Picturephone Debacle

An overriding goal for our nation, and a charge to the Bell System as a quid pro quo for granting the monopoly was the delivery of universal telephony. When telephony penetration exceeded ninety percent of the population, the Bell System put out the banner: "Mission Accomplished".

What next? One article of faith around Bell Labs was that the next logical dimension in human communications was video. A large percentage of engineering resources were thrown into project *Picturephone*. The idea was to marry ordinary telephony to a video screen which would allow the parties to see each other during the conversation.

A customer device was designed. It was the size of a large toaster with a camera and a four inches wide screen. An ordinary phone was connected to it. The attached picture is an old flyer from

Western Electric, the Bell System manufacturer.



Massive modifications to the network were needed to support its introduction. We even designed a special carrier, the T2, to transmit Picturephone type signals across the network.

When the Picturephone system was ready for rollout, cold reality hit Bell Labs. Because of regulatory requirements, the Bell System was obligated to charge the final customer a "compensatory rate" that would recover capital expenditures by a certain time. The Picturephone was reputed to cost the Bell System 700 million dollars. To recover the correct amount, the customer would have to be

charged \$30 (thirty!) per minute! How many people would be willing to pay to see the face of the party they were calling?

Protected by monopoly, the Bell System had no need for marketers studying customers' willingness to pay. It was an order taking company run by engineers. The Picturephone fiasco was an inevitable outcome. Larger capacity carriers named T3 and T4 were eventually developed, but T2 carrier and the Picturephone projects disappeared from the radar screen.

Data over Telephony: Fitting A Square Peg into Round Hole

No one on earth had a better grasp on the art and science of telephony than Bell Labs. That knowledge was based on a sound understanding of telephone users, their vocal traits, their customs, their foibles, including their habit of flooding the network on Mother's Day, and Christmas.

Along came digital technology and computers. This created the need for new ways of communicating between humans and machines, and machine to machine. If we were able to digitize voice, a feat which Bell Labs performed brilliantly, then the transition to communication with computers should be a natural outgrowth of our expertise in digital technology.

Wrong.

I spent the last couple of years at Bell Labs designing systems for the transmission of "data" over a voice network, albeit of digital design. It was really a shoe horning effort. Although both transmission and switching were processing voice communication in digital format, the design was still optimized around traditional voice characteristic resulting in anemic and convoluted performance for pure data. From these efforts, emerged services like sub rate data, 56kb data, clear channel 64 kb data, the Integrated Digital Service (ISDN), earliest forms of Digital Subscriber Lines (DSL). All of these services were designed around multiples and submultiples of the basic single telephony channel bandwidth rate: 64 kb/s, used in the highly successful T1 transmission system..

Except for basic telephony, using the digital network for more advanced services like quality music, video, computer to computer communication proved to be challenging and unrewarding. The highly acclaimed ISDN found minimum application in the US. It fared slightly better in Europe and Japan.

The Internet began to take hold in the 80's, it exploded in the 90's, it is overwhelming communications of all types in the new millennium. Packet switching is the underlying technology. It consumes more *bandwidth*, but it is so much more flexible than the Time Division Multiplexing (TDM) technology we used at Bell Labs. It can transport regular voice just as easily as it can transport a symphony with high fidelity, movies, and all manners of computerized type communication.

AT&T Headquarters: In the Shadow of the World Trade Center Towers

In 1970, I moved on to the AT&T Headquarter at 195 Broadway in New York while the WTC Twin Towers were under construction. During the next three years, I watched the towers grow into "adulthood." I was commuting from New Jersey to AT&T, located one block east of the towers. The Hudson tube train connected New Jersey to New York. Its final station was under the towers. Every morning it disgorged a sea of humanity upon lower Manhattan. The towers served as a majestic gateway to Lower Manhattan. You have to come from New Jersey to really appreciate their iconic power. Once you emerge from the underground, the twin towers acted as a wind tunnel, converting modest breezes into tornado-like events on the ground.

The 29 story AT&T Headquarters building was dwarfed by the World Center Towers which were framing its background. My office was on the 20th floor overlooking Grace Mansion: NYC city hall. The latter acted as a magnet for demonstrators of all causes.

Next to the super modern twin towers, our headquarters building was an incongruous throwback to the baroque era of architecture. Graced with granite and marble columns, gold trimming, it was an old dame reminding the two giant upstarts that grace and beauty anchor us to the ground and our roots while they go about the business of defying the sky. As I looked up to the towers in awe, I could not help but dream of limitless horizons and a future without bounds. Reality eventually intruded itself: the twin towers are gone, 195 Broadway is still standing. Adjacent pictures are clockwise, beginning with one upper left.



195 pre 9/11 with twin tower in background; post 9/11 with new tower in background; main entrance; lobby.



At AT&T, I became member of a team charged with the responsibility for designing a long distance network for the United States based on the new digital technology. We used massive computers to map the existing network, superimpose and introduce new digital transmission systems, and develop a plan for

the total conversion from analog to digital technology over a period of twenty years. Each

individual member was also assigned the responsibility to act as an engineering consultant to a number of Bell Operating Companies to guide the implementation of the new plan in their respective territories. I was assigned: Pacific Tel, the California Bell Operating Company; Bell Canada, at that time a subsidiary of AT&T, and the Indiana Bell Telephone Company.

As a consultant to the BOC's, I travelled often to these companies, made presentations to executives, operations, and engineering staffs to introduce them to the new technologies, their companies' role in integrating their network to the nationwide digital network, forming interdepartmental teams to execute the plan, and then lead them through their own planning process.

The most pleasant consulting experience was with Pacific Tel. The headquarters, located at 140 New Montgomery in San Francisco, was within walking distance of the Bay. This made it possible to commute by ferry from a charming, Swiss-like village called Tiburon from across the Bay to downtown San Francisco. The ferry passed by Alcatraz, the infamous federal prison. On the way back, the ride lasted two martinis, a great way to crown the end of the day.

Bell Canada required visiting Toronto and Montreal. These were beautiful cities, but winter was brutal. Streets converted into canyons of snow. The business of life was conducted in parallel underground cities.

Bell Canada represented a special challenge. Its relations with the AT&T parent were cooling off as Bell Canada had its own research facilities, Bell-Northern Research, and its own manufacturing arm, Northern Telecom. The group was preparing to go independent. Being the bearer of the latest technology information developed at Bell Labs, I was much more guarded about divulging too many details to a most attentive audience. Indeed about a decade later, this northern collection of companies under the name of Nortel Networks entered the US markets, and became one of the fiercest competitors of our own manufacturing companies, Western Electric and, later, Lucent Technologies. I developed some acquaintances up north, relationships which became crucial at a later stage in my life, after the Bell System officially broke up in 1984.

Life at AT&T was very formal. Jackets and ties were required at all times. This was the headquarters of the world's largest, wealthiest, most technologically savvy company. Everything was first class, including airlines, and accommodations worldwide. One never knew when he will bump into the Chairman of The Board. We hosted dignitaries and delegations from all over the world. I became an accomplished speaker, master of the power point (at that time it was a carousel full of 35mm slides artfully prepared by the graphic department.) I was making presentations to very

sophisticated audiences. One has to come from the seaman experience of Amerigo Vespucci to really appreciate the change of scenery.

The Rutgers Graduate School of Business Interlude

While at AT&T, I enrolled at the Rutgers Graduate School of Business in its Newark campus. I felt that earning an MBA would complement my heavy engineering background, a classical preparation for a career within the Bell System. It was a modernistic complex located in downtown Newark, a city which was laid waste by the firestorms following the assassination of Martin King. I attended evening classes twice a week for a period of three years. It represented a commuting challenge.



On the way to my downtown Manhattan office, I parked my car in a shopping center in Middletown, New Jersey, my home at that time. I then waited by the side of the highway to flag down a Newark bound bus.

In the winter it was not unusual to be standing on the edge of the road, in snowy slush, as traffic whizzed by. I had to be sure I could spot my bus and be recognized by the driver in time for him to stop safely.

The Greyhound bus station in Newark was populated by derelicts. I got out quickly and walked briskly to the nearby Hudson Tube station. Twenty five minutes later, I emerged in Manhattan from underneath all the construction surrounding the then twin towers. Warm AT&T, cozy office, was just one block away. Total commute: one and a half hour.

On school nights, upon return to Newark, I would walk to the Rutgers campus for my class past scenes of wretchedness: panhandlers, people pushing carts containing all their earthly belongings, impromptu singing exhibitions, would be preachers calling for repentance, menacing group of youngsters loitering about, sellers of trinkets. The campus itself suffered one mugging per week.

Rutgers at Newark was the quintessential urban university. No one lived on campus. All students were commuters. Not an ideal place to establish lasting relationships. It did, however, provide a great learning experience. Tax strategies, financial planning, marketing strategies, accounting, management processes, business statistical analysis, business case preparation were all subjects with immediate relevance to the job or my personal life.

The entire curriculum was based on the Harvard business case model. Real business problems were analyzed in great depth. Students, organized in teams, were to develop and present solutions to the class. Competing teams had to defend their positions. To prepare for these cases, one had to do lots of research. Much time was spent on the phone with members of the team to coordinate a unified response. There was no right or wrong answer. The entire class was voting on the likely success for a particular solution. At the end of the day, or semester, everyone promoted himself.

The commute back home on school days was brutal. Walking from campus to bus station at night was unpleasant and dangerous. There was a wait for the right bus at the station. Derelicts were milling inside and outside the station. I tried to ignore the world around me, but I could not ignore the unpleasant odors. I made it home at about 10 PM.

To Alabama: Deepest of the Deep South

When Rutgers graduation day came, I did not bother to attend the ceremony. My family life was coming under stress. My three children, Denise, Karen, and Eric hardly knew their dad. I was relieved to head on to my next assignment: Alabama.

After three years at AT&T, I was expected to be rotated back to Bell Labs. Coincidentally, an executive in my chain of command at AT&T, C. Williamson, was promoted to Vice President for operations at South Central Bell (SCB), a Birmingham based BOC serving five states: Alabama, Tennessee, Kentucky, Louisiana, and Mississippi. He had a highly technical background. Moving to a line job made him a prime candidate for succeeding the President. He invited me to join him on his staff in Birmingham.

About that time, I was contacted by a head hunter. He invited me to explore an executive opportunity with ITT, a conglomerate with telecom and other businesses worldwide. I was interviewed for a couple of days, including an extensive session with a psychologist. One memorable question I was asked: "Do you hate your father more than your mother?" I puzzled over the significance of this question. I surmised that the psychologist was more disturbed than I was. At the conclusion of the interviewing process, I was offered an executive position with ITT Telecom in Chile. Those were politically turbulent times for Chile. ITT was not only running the state telephony operation, it was also engaged in copper mining. A Marxist president, Salvador Allende, was threatening to nationalize everything in sight.

Allende was ousted and committed suicide shortly thereafter in a coup d'état led by right winger Augusto Pinochet. As an outcome of the turbulence, ITT wound up being kicked out of Chile.

I chose the safety of Mama Bell. One attractiveness of working for the Bell System was that I could move from company to company without losing any accumulated benefits. Another one was job security. The company hired most of its new employees straight out of school. Normal exit was upon retirement. These were attributes which I greatly valued at that time.

To the chagrin of the executive that was expecting me back at the Labs, I decided to pack up my family again, and head for Birmingham, Alabama.

SCB's HQ was in a modernistic, 25 story building in downtown Birmingham. On the first day on the job, I was greeted by my future manager at the lobby. I signed a register and was escorted to an

elevator. It was almost 9:30 AM. A third individual joined us in the elevator. He was short, unassuming, dressed modestly.

My escort introduced me: "Mr. Bauer, this is Mr. Mattesich. He is joining us from AT&T in our general staff department."

The gentleman greeted me effusively: "Welcome to our company, Mr. Mattesich. We are going to accomplish great things together."

"Thank you sir, and what do you do around here?" I asked. "I am the President," he answered matter-of-factly.

"You are kidding me," was my spontaneous response.

My escort politely reassured me that the gentleman was indeed Cecil Bauer, the President. I was mortified. I knew the name of the President, but I just didn't connect it in time.

My escort and I disembarked the elevator on the 20th floor. Mr. Bauer went on to his corner office on the 25th.

My new office had a sweeping view of the city. The surroundings were dotted with small buildings giving the city a provincial feel. The 16th Street Baptist church, site of the infamous bombing that killed four black girls a decade earlier was around the corner. In my three years in Birmingham, and living in surrounding tony neighborhoods, I found the city to be fairly open and relaxed about the racial animosity that consumed it in earlier decades. The mayor was an African-American man.

I discovered to my surprise, a far more subtle form of social discrimination. Its roots were religious in nature. People from the north, including fellow executives from AT&T, were considered heathen. The occasional foul word would be offensive and blasphemous to their ears. Northerners were not trusted and accepted into their social circle until such time as they accepted their religious fundamentalism and perhaps joined their churches.

My assignment was to monitor the performance of the network and the quality of service offered to the customers across our five states. I was to oversee the introduction of new management processes, new tools, new products, which had the potential for improving service and efficiency into the plant department. About 50,000 people engaged in field operations were impacted by the controls we exercised in Birmingham.

My immediate staff consisted of about three dozen staffers and four immediate subordinate managers. Almost one third of the staff was dedicated to monitoring on a sampled basis incoming calls to central bureaus across the five states. They prepared monthly performance reports on the quality of the service offered to customers. Likewise, every dispatch by our repairman in response to customer complaint was tallied, scored, and summarized for analysis, correction, and performance evaluation.

These reports were given to managers up the line. Selected summaries went all the way to AT&T in New York. According to these metrics, South Central Bell had the worst reputation for service in the whole Bell System. We confronted a challenge to improve company overall performance. That was one reason why Williamson was dispatched there.

It was not long before we discovered the major source of complaints. They occurred mostly in the summer, at the tail end of storms. The problem was that our states were located in a geographical part of the country with the most intense lightning activity. Lightning was striking telephone cables or inducing thousands of volts that propagated down the lines and potentially into customers' homes creating very dangerous situations, and possibly fires.

To keep lightning surges from entering homes, the phone company installed carbon protectors on cables before they entered the home. The function of these protectors was to create an easy path to ground where the lightning surge could dissipate safely. They worked, and they were cheap. They suffered one big problem: when they were energized, they opened up, interrupting service to the customer. This generated a customer complaint which required the dispatch of a repairman who simply replaced the carbon protector. The average cost of each dispatch was approximately \$50.

When C. Williamson was presented with another rash of bad statistics, he asked me what the source problem was. I explained the lightning scourge of the summer.

"Don't we have a technological solution for that? I read somewhere about gas fired tubes as being a potential replacement for carbon protectors. What do you think?" he asked.

I promised to check into it and report back.

Upon doing some research, I discovered a small Long Island based company which produced gas tubes, *TII*. Within days, an account rep showed up at my office. His name was Floyd Rohner. He was based in Clinton, Mississippi. To him, that town, which I never heard of, was the center of the

universe. Not only that, but he had the perfect solution for our lightning woes. He proceeded to take over my desk. Placing a contraption, which he claimed was a lightning simulator, he connected it to a stand holding a test gas tube. An electric meter was placed across the tube. He fired his contraption, the meter deflected twice proving that the gas tube indeed fired, and then returned to its normal state. He fired it again and again and the tube always returned to normal. He reassured me that his gas tube was submitted to rigorous testing at the Underwriter Laboratories (UL). WOW!

This device could be the answer to a maiden's prayer, I thought. Two big problems: the gas tube price was about four dollars. The comparable carbon protector was less than one dollar, and it was produced internally by Western Electric. The other concern was that we consumed protectors by the millions.

Would tiny TII be able to mass produce them?

Resourceful Floyd had no problem, "We outsource manufacturing to our plant in Puerto Rico. It can easily gear up to meet your demand" he said.

"What about price?" I asked. I knew I could sell our financial people to go for a three dollars gas tube. Four was way too much when our internal cost was less than one dollar.

Floyd demurred. "I would have to go to the President on that one, and he would have to go to the Board".

"Floyd, the Board can resolve this thing tonight... in bed," I retorted. I knew that the Board was made up of the President and his parents.

"Come back tomorrow with a better deal", I continued. He did and we had a deal the next day.

I assembled the study to convince C. Williamson and the financial people to support the new program. It made economic sense. It would reduce trouble dispatches, and

Small devices: Big impact. Left: Typical carbon protector by Western Electric (\$1). Right: Gas tube protector by TII (\$3)



I assembled the study to convince C. Williamson and the financial people to support the new program. It made economic sense. It would reduce trouble dispatches and provide better customer service. The benefits would show up in a few years because gas tubes would take some time to be deployed in sufficient quantity to be significant contributors to our bottom line. I visited the Puerto Rican factory to satisfy ourselves that TII was indeed capable to produce gas tubes in the quantities that would support a sustained program covering all five of our states. The deal was signed. The program was launched. Our trouble rate improved South Central Bell began to slowly crawl out of the Bell System dog house.

Floyd continued to bring me gadgets that could improve safety or productivity in the field. He had the demeanor of the down to earth character playing deputy sheriff in the movie Fargo who patiently, nonchalantly, but with dogged persistence managed to nab a nasty killer.



I made an average of two trips a month to the head office at each state. There were no direct flights from Birmingham to the respective cities: Louisville, Nashville, New Orleans, and Jackson. SCB maintained a fleet of two corporate jets.

They made it convenient to handle the business in each city and return home with a one day turnaround.

My mission on each trip was to review performance at the state level, train local staff on new programs, and brainstorm any new problems which needed attention.

At least once a month, the trip to a state was extended by one day to perform a field inspection. These were rituals where all plant managers had to climb aboard a truck with an installer/repairmen and ride around the countryside as he moved from job to job. We were scoring every step of the way; observing customers, studying the purpose of each dispatch; observing the interaction of the technician with inside resources at the central office, the assignment bureau, the repair test center, and dispatch control.

Most colorful were visits to the *hollows* of Kentucky around Frankfort. These were beautiful, hilly countryside. Little homes were dotting the side of hills. The view was marred by all manner of debris in front of homes: discarded tires, appliances, cars, skeletons of furniture.

Most houses were built on stilts, about a foot or two off the ground. Chicken, pigs, dogs, cats were roaming around. Inside the house was a woman, missing some teeth, baby fussing in her arms, other kids screaming, their noses running. I helped the technician move a sofa to gain access to an electrical or telephone cable behind it. Roaches scurried around. It would not be unusual to open a telephone connecting box and find that the contacts were corroded by droppings from vermin of all sort. The tech would replace the corroded box and would resolve whatever problem the lady complained about.

Occasionally the technician would have to crawl under the house to chase a cable. There I did not follow him. Nor would I climb up the pole to inspect the cable distribution box. Other than that, I learned what poverty in white America really looks like. Sansego, facing near famine in WWII, did not look so hopeless.

At the end of the day, all managers convened for a debriefing on the day's experience. Assembling performance metrics, summarizing what we learned, brainstorming about any larger lessons, and exploring where we can change methods or products to improve productivity. The Bell System was organized along semi-militaristic lines. A premium was placed, however, in making sure that its management cadre acquired hands on knowledge from the grounds up, as much as possibly in an interdisciplinary environment.

Floyd Rohner, who became a lifelong friend, brought fascinating nuggets of wisdom and simple ideas about solving specific problems. His perspective was from outside looking in. He made it a point of keeping his ears to the ground. He fed me intelligence about things and people in our company of which I was not aware. He even knew my schedule, because no matter where I

showed up in the five states, Floyd was likely to pop up there to show me the latest and greatest gadget he was peddling, or simply invite me to dinner when I was staying overnight.

It has been twenty-five years since I retired from the Bell System. Floyd is still out there learning and keeping me posted about what is going on in that segment of the industry. He remembers things and events which I have long since forgotten.

One management experience I wasn't trained for was how to handle an affair between two subordinate managers. They were competent, experienced, hardworking managers. They never let their affair interfere with their duties on the job. The man's wife was apparently insanely jealous. She got wind of the affair. She called me agitated, after hours, demanding to know where her husband was. I told her that her husband was on the job that day, that he was doing a great job, but I had no idea where he was, or what he was doing after hours. In the Bell System an affair like that would be ground for dismissal only if one party reported to the other in a managerial chain. I heard that the man was so afraid of his wife that he moved out of the house.

Sometime after I left Birmingham, my friend Floyd Rohner advised me that my guy was murdered by his wife, who was now in jail.

The Emperor Has No Clothes Episode

The benefit of working for large corporations is that they can afford extensive training for their employees. I attended several technical programs at the Bell System Technical Center in Lisle, Illinois.

In Atlanta, there was another training center for managers in line operations. The center director was an executive whom I knew from my time at AT&T.

When in Birmingham, I attended four one week long training seminars in Atlanta on topics as diverse as budgeting, construction engineering, and management of outside plant. I was driving to Atlanta on a Sunday night, checking in at a company controlled hotel, attended classes for the next five days, and returned home on Friday night. At a Thursday night dinner we were regaled with a visit and presentation by a guest speaker, usually a top level executive from AT&T in New York. The director insisted that I joined him at the table with the guest speaker. He wanted to make sure that I generated a few questions and helped the conversation along.

One Friday, I packed my belongings, checked out of the hotel, and went to class dressed casually in preparation for the drive home. The lecturer was scandalized: I violated the formal dress code of the center. My protestation that Friday was casual fell on deaf ears. Within an hour I was summoned to the Director's office. There I was berated for violating company policy and exhibiting a rebellious spirit.

That was not the worst. It so happened that the executive I reported to was scheduled for a seminar the very next week. The Director let him have it. In addition, he told my manager that I was monopolizing the conversation during the guest dinner. I shudder to think what was written on my personal dossier.



[Dilbert's take on corporate self-congratulatory award banquets. Black humor at its best]

DILBERT © 2014 Scott Adams. Used By permission of UNIVERSAL UCLICK. All rights reserved.

The Director was the one without clothes... and without shame. I was not contrite, but I was traumatized by the whole experience. About a couple of weeks later I attended a management retreat lead by the company president. I was the *only* attendee dressed formally.

In The Phone Company Trenches

My next move was to Knoxville, Tennessee. This was a football crazy town, in a football crazy state. The University of Tennessee was located there. It had a 90,000 people stadium. My oldest daughter Denise, a cheerleader at local Farragut High School, went on to graduate from the University of Tennessee. There she became the president of her sorority. She has a bubbling personality, forever positive, and determined to make her daddy proud.

I was never much into sport. I casually followed college football. At the University of Virginia, our team managed to beat the Army, but other than that we were not known as a football powerhouse. When Virginia came to Knoxville for a college match, I decided to attend the game: Surprise! Little old Virginia beat the hell out of top rated University of Tennessee.

A few weeks later the Rutgers team came to town. I didn't even know that Rutgers *had* a football team. It was primarily an urban university with not much opportunity for building a truly competitive team.

Shock: Rutgers also beat Tennessee. My daughter, the perennial cheer leader, was devastated. I was thinking that Tennessee would have been better off sticking to the moonshine business. I dared not express this opinion out loud.

Moving from town to town, wife and I bought and sold several homes. Each successive home was more expensive. We accumulated equity. Indeed most of our wealth was tied into the home. In Knoxville we decided to build our own home, of our own design. The design process took one year. Building took another year. By the third year we were on the move again: back to AT&T.

My task in Knoxville was to manage a field operation with about 300 technicians spread over 14 different garages and hundreds of vehicles. This district was serving a customer base of about 300,000 people.

Before I could get my feet wet on the new job, I was rushed to take over the Chattanooga plant operation because my colleague had to undergo a major heart surgery and was expected to take several months in recuperation. Chattanooga had a smaller population base but a much larger manufacturing base. My Knoxville job ran on autopilot for the duration of the Chattanooga assignment which lasted six months.

During working days, I was staying at the historic Chattanooga Chu Chu Hilton hotel. On weekends, I was commuting back to Knoxville.

The entire East Tennessee region was considered a basket case in terms of performance. In Chattanooga, I quickly discovered that the major problem was poor coordination and cooperation

among the various departments responsible for providing good service to the community. More time was spent documenting what the other department was doing wrong than fixing the customer



problem. These other departments included engineering, central office, cable assignment bureau, commercial. The plant department was the most visible to the end customer. It took the brunt of the complaints.

My Chattanooga office staff is shown above. Being a new face in town, I pleaded with my colleagues to throw away all their diaries of who shot John, and start competing with who can be the most cooperative in solving problems.



FAREWELL TO ROM

To Rom we say farewell, we really wish you well.

*We hope and pray, your Chattanooga stay,
Will be happily remembered as you go your way.*

*You made some waves in quite a few streams,
And helped some folks to realize impossible dreams.*

*We will miss your smile and your optimistic manner,
And Jamie will even miss you when you are late to dinner.*

*When you get to Knoxville, you will soon regret,
That Jamie is not there with a cigarette.*

*Your taught us big words like disparging and amorphous,
And made us aware that we are here for a purpose.*

*Now that your job in the Chattanooga District is done,
We want to let you know we appreciate your making us Number 1.*

From the Riverfront Gang

Miracle!

My colleagues were starving for a new face on the team, and a new attitude. The Chattanooga district started showing better results by the second and third month. By the time I left, it was the most competitive in the whole company.

The very spontaneous farewell from my staff was most rewarding.

Back to Knoxville, confident on my ability to charm my colleagues and my own plant people, I tried to repeat the same formula. It didn't work. I was warned by my own managers that the folks in Knoxville were a bunch of rough mountaineers. They loved their independence. They didn't take management guidance too easily. The local union was very strong and confrontational.

The biggest problem I was facing in Knoxville was the failure of my people to complete the installation of new service assigned to them on any given day. They were supposed to complete an average of eight jobs a day. Coming back to their own garages at the end of the day, they turned back to their supervisors one or two jobs. These were scored as "missed appointments." It was the worst metric on the performance scale of the district. Customers that waited all day for the installation were mad. They filed complaints, another metric which hurt our reputation.

Furthermore, the missed jobs had a cascading effect on other departments which had to rework and reprocess the same order two or more times.

Having gone on numerous field inspections, I appreciated the difficulties my team encountered during the day: defective cable pairs, wrong posting in the central office, equipment to be installed did not match the material on hand, and so on. The most time-consuming task required locating a good working cable pair to swap for the defective one. Lots of time had to be spent on the line with the central office, the repair bureau, the assignment bureau, and in the process, climb multiple poles. The most enterprising installer would "steal" whatever working pair he found and complete that specific installation, but creating havoc with the records at the assignment bureau. Such action created many more complications down the road.

With the advice and unconditional support of one really tough and experienced subordinate manager, Cliff Renfro, we began to plot a recovery.

First step was to improve our relationship with the Union. A new President was just installed. Her name was Betty. I began to work on her explaining how our poor performance was threatening all of our jobs. Competition in long distance service and customer supplied equipment (CPE) was beginning to make inroads throughout the Bell System. We had to keep our costs down and our customer service up. We were all on the same boat. I needed her to prepare her members for rougher times ahead. Cooperation was essential.

I treated her with respect. I kept an open channel of communication. The number of grievances began to drop. These are formal complaints against the management which required a joint management union conference to resolve: a big waste of time.

The other problem we had was that technicians didn't like to work overtime, except on their own time and convenience. If we forced them to work an extra order on a given day, they would object. That was called "forced overtime", sure to generate a grievance the next day.

One day we let the word out that next day, no one was to return to their garage, until *all* orders on hand were completed. We sympathized that many of the delays they encountered were generated by other people in other departments, but we were the last and most visible part of the service delivery chain.

Breaking out of the spiral had to start with us.

On the appointed day, supervisors positioned at every garage called into my office every fifteen minutes to report who and how many people were coming back, and at what time.

Five o'clock. Five thirty. Five forty five. Six. Six fifteen. No one in yet. We were holding our breath. By six thirty maybe a dozen people returned. They began drifting in a few at the time. The later they came, the madder they looked. By 8PM the stragglers were all in, and accounted for.

By next morning, I had a mountain of grievances on my desk, but all orders assigned that date were completed.

Not only did we make immense progress in one day, but the next day was not as bad. The load on everybody was reduced as many of the orders did not need to be reworked and reassigned. Progress was very rapid.

A new problem popped up: our crews were angry. Talk of a strike was in the air. We had a large dispatch center mostly staffed by women. They were tracking and mapping the progress of every

installer. They were in continuous communication with the field people. The strike threat was apparently fomented from inside the dispatch operation. Cliff Renfro, the operations manager on my staff, knew the main agitator. She was also a so called "shop steward," the union representative for that group.

In our company one could not easily fire anyone without a complicated due process, closely monitored by the union. Cliff knew how to deal with the lady. He placed a chair at the edge of the room and asked her to sit there. Whereupon she asked:

"What am I supposed to do?"

"Nothing!" was his curt answer.

Cliff returned after a couple of hours and told the lady she could resume her duties. I never heard from, or about, that lady again.

Rumors about the strike continued to swirl and build up. Eventually we heard the rumor that all workers in my district were going to walk out next Friday. I was getting apprehensive. A strike in my district would make state and probably national news. I sought advice and support from colleagues in other departments. They all demurred. The message I got: "you are on your own, pal."

I called my immediate supervisor located in Nashville. He essentially encouraged me to do what's best for the company, but I was otherwise to be on my own. I was supposed to be in Nashville that Friday for a statewide meeting of managers. I told him that I would have to skip that meeting to deal with the possible strike.

With Cliff's steady support, we held a couple of meetings with all management personnel and prepared a plan of action to cope with a possible strike. We again positioned ourselves at all garages early that morning. Instructions were to lock up and secure all facilities if any picket showed up at the gate.

Friday morning came. Tensions were high. Cliff was the calmest, coolest guy around. My office was again acting as the command center. Normal starting time was 8AM. All management was on duty by 6AM.

Six. Six thirty. Seven. Seven thirty. Quite. Silence all around.

By 7:40 people began streaming in, reporting for duty. By eight just about everybody was in. We started breathing more normally. Maybe the whole threat was a hoax. By eight thirty just about everybody was in his vehicle and beginning to move.

By nine o'clock I was convinced that the whole thing was a bluff to force me to take all those pending grievances more seriously. I called Nashville and advised them that the threat was over. I was coming to attend the meeting after all.

That meeting, chaired by new company president, Wallace Bunn, earned me a congratulatory handshake. I was the star of the social event following the business meeting. This time my first meeting with the new president was a lot more gratifying than the clumsy elevator encounter with his predecessor.



Things settled down quickly. Betty, the union president, cooperated in calming down the troops.

All of a sudden, there was no need for overtime of any kind. Furthermore, we soon discovered that we had surplus personnel. Within a couple of months, we reduced the force by fifty percent. I just worked myself out of a job. My district was now small enough that it got merged and folded into an adjacent district.

Breaking Up the Bell System

It was back to New York. This time the intercompany camaraderie was beginning to evaporate. Rumor of a breakup of the Bell System was in the air. Secret negotiations at the highest levels of AT&T and the Justice Department were working to dismantle the world's largest monopoly. This was an outgrowth of years of litigation and building competitive pressure. The original rationale for a "natural monopoly" no longer was considered relevant.

A company that valued, and received, loyalty was in turmoil. Starting and ending your career with the Bell System culture was coming to an end. A company that took one hundred years to build was about to be dismembered. It was a sad picture,

In 1982 an agreement was reached with the Justice Department to restructure the Bell System. It had to "divest" itself of the Bell Operating Companies, which would be allowed to retain a monopoly in their respective territories but was to be restricted to the provision of local service only. AT&T was going to retain the manufacturing, research, and long distance components of the system. AT&T was now free to enter the coveted field of computers, but it was subject to unbridled competition in every field.

Divestiture had to be completed by 1984.

Breaking up a company that took one hundred years to build, turned out to be a gargantuan task. The American public received great value by allowing this great monopoly to stand. Integrity, efficiency, enormous spirit of service to the nation, technological leadership, the best and largest employer on earth was the hallmark of the Bell System. I am now waxing romantic. But I was also resigned to reality that the time had come to move on for the nation and for the company... and for Rom Mattesich. The great AT&T monopoly had outlived its usefulness.



The last two years of my service with AT&T were spent as member of various task forces assigned to execute different facets of the divestitures. Every minute detail on how to run the phone company was codified in a set of documents called the "Bell System Practices" or BSP's. There was a huge room at AT&T containing every copy of every practice that was ever written and revised. Umbilical cords had to be severed. This was the room to start from. We

broke up into teams, each covering some area of expertise. Shown here is one team that worked on sunset projects. I served in a couple of them.

The atmosphere was tense. Free flow of information across departments and companies stopped: camaraderie died. Overriding concern was positioning oneself for whatever the outcome of a turbulence that was shaking a great company at its core.

Many, many issues had to be dealt with. One issue that turned out to be particularly thorny was how to allow for competition in the long-distance business. In the new world, when customers asked for new telephone service, they would have to specify which long distance company they wished to be served by.

The BOC's customer service rep was not supposed to suggest any specific provider such as AT&T Long Distance, MCI, Sprint, and other companies which were competing for the business at that time. It was not unusual for uninitiated customers, frustrated by having to answer to a litany of other questions, simply responded with an "I don't know and I don't care."

The original procedures we instituted on breakup called for defaulting to AT&T Long Distance when customer failed to specify a particular carrier. It wasn't long before some enterprising individual saw a business opportunity. He was going into the long distance business with a new company named "I don't know and I don't care, Inc." I don't believe he made it beyond the required FCC application, but his gall was another example of what makes America great: the business ingenuity of its people.

An earlier antitrust settlement with the Justice Department, called the "Consent Decree Of 1956" restricted production of computers for internal purposes only. Giving up the monopoly was considered a fair trade because it was now free to pursue the hot computer business.

The Battle of the Titans: AT&T vs. IBM

It so happened that IBM, the other giant computer company, waiting for telecom markets to open up, jumped in with its Rolm PBX, a private switching system located on premises of large businesses.

The press had a field day. It hyped up the upcoming AT&T-IBM battle: each was invading the other's market.

As it turned out, neither understood the nuances of the marketplace in the other's guy turf. They both had all the money, the technological prowess, the name recognition to make a go of it.

They both failed, miserably.

I believe that at the end of the day, people trusted more the "phone company" for phone products, and the "computer company" for computer products. Neither giant managed to change that perception.

Both companies tried to jump start their entry into the other's market by acquiring companies already in the business. IBM got a wobbly PBX manufacturer named Rolm Corporation. It later joined forces with well-known telecom manufacturer, Germany's Siemens.

AT&T acquired computer company NCR, of cash registers fame, and joint ventured with Italian computer manufacturer Olivetti, of typewriters fame. It even hired a well-known marketer from the outside world at the Vice-Presidential level. It never happened in my twenty years at AT&T. The entrenched culture rejected these external transplants. They all failed within a couple of years.

Watching all these incoming train wrecks from the inside of AT&T, busy with executing the process of dismemberment of a great company, the scenery was beginning to get depressing. The time was coming for planning my own departure.

Heading for the Exits

Anticipating the big breakup, I began planning an exit strategy. The time was coming for leaving the comfort and security of a big company for the scary new world of entrepreneurship with its attendant risks. The vehicle: convert a hobby into a full-fledged business. .

Since my days at MIT, I was smitten by the power of computers. Programming became my hobby. The favorite toy was a time share terminal, a typewriter-like device which could be connected to a remote computer via regular telephone lines. Using FORTRAN and Basic programming languages, I developed and used various programs for applications that automated engineering and management functions.

The arrival of the IBM PC in 1981 was the first personal computer with serious business potential. It

could also connect to a remote computer, but, more importantly, it could operate on a standalone basis. It could support attached printers and auxiliary devices. It, however, suffered of a lack of usable business applications.



Using some anemic data base management system touted to be "IBM PC compatible", I developed an inventory system for a friend in the business of selling sewing machine parts to the garment industry.

Brother Nick, in the meantime, moved his garments making operation to larger factories in the Northern New Jersey area. He employed about 70 people. The core of the company was a family affair: Nick, wife Wally, sister Joyce, her husband Larry. The latter was the office manager, and the most technically savvy one.

I convinced Larry to purchase an IBM PC to do the payroll in house and save the monthly fee of outsourcing. The configuration he purchased, without the knowledge and approval of the rest of the family, cost about \$4,000. I promised Larry that I would give him a working payroll program by January 1 of the following year, an ideal time to switch providers.

There were no payroll applications on the market for the PC. I got hold of payroll software that was running on larger mini computers. It was written in business Basic. I decided to use it as a template.

The program needed serious adaptation to fit it into the more limited resources of IBM PC. I worked at it for six months. January 1 was fast approaching. The new program was still unstable. It required much "baby sitting" on the fly to operate.

The first week in January, I was scheduled to represent AT&T at the giant, week-long COMDEX trade show in Las Vegas. I suggested to Larry that we should consider aborting the January 1 cut over. It was too difficult for me to support his most crucial first week. He was adamant that we go forward. We did.

It worked.

We probably achieved the very first application of a payroll running on the IBM PC.

It took a little while for the family to accept the new computer system as an integral part of their business. Nick would sarcastically challenge its value: "How many more coats would they produce with this new gizmo?" Larry's faith in the new technology never wavered. He was instrumental in some crucial developments soon to come.

Dramatic winds of change were also blowing hard for the apparel assembly business in the USA. Large American brands like Levi Jeans and Liz Clayborn began to ship their cut good overseas where labor costs were much lower. The garment union was hounding manufacturers like my brother out of business, or out of the country. The textile industry in the Carolinas was dying.

President Reagan facilitated this outsourcing business by signing off on the so-called Caribbean Business Initiative (CBI). Born out of Cold War considerations, including fear of more Cuba's across Central America, the CBI offered several countries in the region access to the American apparel manufacturing industry. The essential notion was to export unfinished apparel goods to these countries, let their people add the intensive labor component of assembly, and then allow the re-importation of the finished goods back to the US duty free. This arrangement was appealing to American apparel giants because it reduced the labor cost component of their goods.

Squeezed by high union-imposed costs, and a declining source of work from its customers, brother Nick and his family partners decided to sell their last factory in the US and move the operation down to the Dominican Republic.

In conjunction with, and the encouragement of his American customers, Nick managed, and eventually opened on his own account some large factories. He employed thousands of workers.

The prime compensation method was called "piece work", whereby production was paid in proportion to the work performed: x cents for sewing each sleeve, y cents for stitching the zipper, z cents for attaching buttons to shirts, and so on. A minimum wage had to be paid for the hours worked, but piece work earnings were essential for retaining the job and for really earning a living. In addition, employers had to keep track of earnings for the purpose of calculating the annual bonus, called locally *Cesantia Pascual*. These bonuses could be cumulated by year but eventually they had to be paid to workers, even if the company ceased to operate as a viable company. These bonuses represented a huge liability for employers. Failure to pay them was a criminal event.

Tabulating thousands of piecework tickets and time cards was a massive undertaking. Since labor was cheap, roughly a tenth of comparable labor cost in the US, employers simply solved the problem by throwing more people into the fray. The problem was more confusion, more errors, difficulty at extracting meaningful management and performance reports.

I saw a big opportunity for bringing PC technology to bear on the payroll problem. Again, brother in law Larry invited me to adapt the payroll program we developed in the US to the Dominican environment, which, in addition to accounting for piecework, had to contend with the peculiar annual bonus, among other issues.

I enthusiastically went to work on the Dominican version of my payroll program. All this effort was on my own time, but I knew also that I was planting the seeds of my post AT&T life.

By 1984, the Bell System dismemberment process was complete. AT&T had to drastically restructure itself to face the new competitive environment it was facing. All HQ management was offered a voluntary early retirement buyout package. It included one year full salary. By 1985, I decided to accept the package and start a new life, and a new business in Miami. I was 48 years old.

Miami, the Capital of Latin America

I chose to start a new life and a new business in Miami for a number of reasons.

Miami was an international city. It had the informal title of capital of South America. The Dominican Republic, a country of special interest, was easily accessible from the Miami International Airport (MIA).

Weather was the other reason. The winter commuting to New York by bus, the snow, the frozen sidewalks and roads, the "slip sliding" of cars when we went over a bridge, the inevitable slush, the cold, the need to dress up like an Eskimo, was wearing on me. I wanted to move as far south as I could, and still be in the US. Miami was it.

I purchased a town house in a gated community on the outskirts of the city, conveniently close to the airport. My new office was in a tower even closer to the airport. I formed a new company, *MicroBell*. Its mission: to provide innovative new services combining the power of new micro computer technology with the latest in telecommunications.

First Business Target: The Dominican Republic

The first logical business to explore was exporting, expanding, and supporting the payroll application in the Dominican Republic. The country was busy promoting the creation of assembly factories within so called "free trade zones". These were basically industrial parks, about a dozen of



them, fenced in, security at the main gates. These zones could import/export duty free anything that was related to the goods produced there with eventual destination back to the US. The main zones we focused on were: Santiago, home of my brother and his cohorts apparel

producing factories; San Pedro de Macoris, a poor town close to the capital of Santo Domingo, well known for producing the most famous baseball players in America; and La Romana, a popular tourist destination, with its world renown Casa de Campo.

Fitting the American payroll system turned out to be nontrivial. Operating it was even more challenging. Accounting for piecework, making sure that we recognized the hours worked, keeping track of earned income for the purpose of calculating yearly bonus, calculating the exact currency (no checks) to place in individually labeled envelopes, pre-printing receipts to document employee's receipt of the cash money, added substantial complexity to the program.

Owners of these businesses also wanted to manipulate calculations to game the system, and their liability to the onerous yearly bonus. The payroll program was getting quite sophisticated to meet all these requirements. But it worked.

Owners of factories in the various free zones were sort of a fraternity. They exerted a powerful lobbying influence on the Dominican government. MicroBell payroll became quickly known and popular. The company was supplying everything from computers, to software, to supplies, to maintenance.

Everything was shipped from Miami on containers used for unfinished goods sent by American outsourcers.

Within a few months, MicroBell had systems in two dozen factories, serving a population of about 40,000 workers.

The physical environment in the factories was daunting. IBM PC's, sometimes duplicated for backup, were located in the corner of large, single story factories. The biggest challenge was the uncertain source of electricity. Public sources were subject to blackouts at any time of day and night. Some of the largest factories were equipped with stand-by emergency generator.

First generation PC's were running on two floppy disks. One contained the program with the payroll instructions; the other one contained the data for all employees. The latter was continually read or written to in response to whatever instructions were being executed. If power failed in the middle of this processing, the data could be easily corrupted. This happened frequently, even though most sites were equipped with Uninterruptible Power Supplies (UPS).

Offices were cooled by window air conditioners. All kinds of vermin populated the factories. It was not unusual to find mice and roaches inside the PC. Their droppings were corrosive and damaged electronic circuit boards.

Facing Chaos at the Factory

From time to time, workers in these industrial parks would protest and demonstrate for better wages and conditions. The government would not hesitate to send out military jeeps equipped with machine gun mounts. Any hint of trouble, and machine gunners would not hesitate to open fire on the demonstrators.

Life was cheap.

There were even squads of two men motorcycle gangs roaming the cities to locate specific troublemakers. "Justice" was administered on the spot.

A common practice for factory workers was stepping outside the building for lunch served by ambulant vendors, who were dispensing warm rice, beans, and chicken on bowls supplied by the workers. Vendors granted credit to the workers pending settlement of their score on each pay day, usually on Friday.

I was called one Thursday to a factory where the payroll clerk panicked because of multiple technical problems with the computers. Payroll for 800 plus people was due next day. I rushed to the place and went to work. Power was up and down all day. The backup data was contaminated. The tension in the office was palpable. Strong coffee, bananas, and cigarettes were on a platter. Everyone was looking over my shoulders.

It was about 3PM. Power was going to be shut off at 7PM. The entire park was to be locked down at 8PM. The target: Deliver by 3PM the next day, 800 plus pay envelopes with correct amount of change in each. Everyone was to be dismissed for the week immediately upon disbursement of the pay envelopes.

On pay day, an army of vultures stood just outside the doors: the food peddlers waiting to be paid for the weekly food. No one dared ignore the peddler without a fight in his or her hands!

I never in my life smoked as many cigarettes, drank as much coffee, and ate as many bananas as I did that evening. Recovering the corrupted data was a tedious, error-prone procedure. Piecing the data together from different sources, there is always the possibility of duplicating some, missing others, or copying part of the contaminated data. Recovery under intense pressure increased the probability of errors.

The scary prospect of a riot the next day was uppermost in my mind. If a disturbance developed in front of our doors, we could expect the military police to quell it their favorite way: blood all over our entrance. Meeting with factory managers, we considered some kind of manual override. None emerged as a feasible alternative. We had to go for broke with whatever computerized data we were able to piece together by 10AM the next morning. We were forced to abort recovery, unfinished, by 7PM. All power was being shut off to the building.

I resumed working at 7AM the next morning. By 9AM, I finally acquired a complete picture of the weekly payroll. By 9:30 AM, labels were produced containing information such as name, date, amount earned, exact change to be placed in each envelope. Concurrent with the printing of the labels, a summary of the various denominations needed to stuff the envelopes was also printed. A trusted supervisor was dispatched to the bank to get the cash. Six clerks began to affix address labels to 800 plus envelopes. It took them about 30 minutes. When the supervisor returned with a bag full of cash, the clerks filled the envelopes with the requisite and exact amount of cash. The envelopes were ready for distribution at 1PM with two hours to spare.

That near death experience stimulated lots of operational and technical improvements to avoid such close calls in the future. Eventually most factories began to pay with checks, but some insisted on paying by cash. It offered more opportunities to manipulate the system, and minimize ultimate liabilities to employees and government.

Foray into Dominican Telecom

MicroBell was formed to develop and offer products and services that straddled the fence between pure telephony and computing. This philosophy reflected my long held belief that the two technologies were going to merge. Indeed, the eventual success of the Internet proved to be the ultimate merger of the two technologies.

The payroll system introduced me to several industrialists operating in the so called, extra territorial, free trade zones. The telecommunication opportunities became obvious. The main flow of voice and data was between the factories and their customers, owners, and suppliers back to the states. There was an established, American owned company, *Codetel*, which had a cozy monopoly on all the island telephony and data business. It had connections established to all the free zones. Its monopoly power allowed it to charge calls to the US at roughly one dollar per minute.

Because the free zones were extra territorial, the Codetel monopoly franchise did not strictly apply there.

MicroBell began offering intranet-factory communications systems known as key systems for smaller factories, and PBX's for larger ones. The larger systems usually connected multiple factories in the same industrial park. This required inter building connections over power and telephone poles owned by the agency which controlled the free zones.

The next target was to offer all the industrialists in the free zones direct access to the United States via small earth stations and satellite circuits provided by MicroBell. The cost per minute was reduced by at least fifty percent.

Codetel noticed immediately this direct threat to its most sacred cash cow. Soon enough my clients received threats from Codetel customer reps that their company would deny local service to any client that switched its international traffic to MicroBell. My prospective clients feared the power of Codetel.

Our sales froze up.

Having just emerged from the most celebrated breakup of a monopoly in the US, I immediately visited the US Embassy in Santo Domingo to cry foul. An American company was abusing its

monopoly power in a foreign country against an American competitor. Some high official listened sympathetically to my complaint and promised to take action.

Within a couple of days I received an invitation to visit Codetel and meet with Mr. Burlenson, the Executive Vice President. He was polite, but denied that Codetel was engaging in anti-competitive behavior. In any event, he promised to investigate and fix the problem if it was indeed occurring.

Nothing changed. Codetel not only continued to engage in its predatory practices, but it actually got more aggressive in pursuing them.

To Kill a Roach, Decisively

Trying to level the playing field, I connected with Westinghouse and sought their help in bringing some heat to Codetel.

Westinghouse had an electric parts assembly plant in a free zone just east of Santo Domingo. It had many such plants scattered around the world. The one of particular interest was located in Puerto Rico. Westinghouse wanted to strongly connect the Dominican and Puerto Rican factories. To do so, it was allowed to set up a private microwave link (radio communication by line of sight) carrying voice and data between the two locations. The Puerto Rican end was connected to the rest of the world.

Most interesting was Westinghouse's ability to establish the 80 miles microwave link across the Mona Passage which separated Puerto Rico from the Dominican Republic. Codetel was the only other communication company using that passage. It was their major connection to the world.

My idea was to piggy back the Westinghouse backbone and financial clout to bypass Codetel and introduce real competition into the island. To extend the Westinghouse's network into the larger Santo Domingo area and from there access free trade zones in the area, we needed to position a new antenna on one of the mountains ringing Santo Domingo.

Enter Señor Semorile. He was the owner of a popular TV station on channel 13 called "La Potentissima", the most powerful one. He owned the top of the mountain where we needed to position our new antenna.

Señor Semorile was also a powerful political operator. He was apparently friendly enough with the then President Jorge Blanco that he was granted use of a two story edifice *within* the grounds of the National Palace itself. I befriended señor Semorile enough that he granted office space to my company,

We were even allowed to place a MicroBell sign on his edifice, probably the only foreign company sign on any country's presidential palace. The palace grounds were located adjacent to Avenida 30 de Marzo, an historical street where US Marines fought a pitched battle against the Dominican Army to dislodge the then Marxist leaning President Juan Bosch, and installed a friendlier President, Joaquin Balaguer in 1963.

One other thing about señor Semorile: there was unbelievable amount of debris surrounding his edifice. His office on the second floor was filthy.



MicroBell, on the ground floor of his two story dwelling. Shown on above picture was my local manager, Homero Gonzalez.

One afternoon, I visited señor Semorile in conjunction with a Westinghouse executive who was assigned the task of seeking the placement of a new microwave tower on his mountain top. We were sitting across his enormous desk. Mountain of papers everywhere. Prominent on top of the pile on the right was a pistol.

While we were engaged in the discussion at hand, I noticed the biggest cockroach I ever saw making its way from the Westinghouse guest legs, heading my way. I was startled. I jumped up and moved my chair back.

"*Que pasa?*" Señor Semorile inquired. I pointed with disgust at the super fat cucaracha on the floor.

"*No problema!*" he exclaimed with confidence. He then proceeded to grab his pistol and blasted the critter to smithereens... or it scampered for its life so fast that I saw no further trace of it.

The meeting was cut short after that excitement. The Westinghouse project never came to fruition.

MicroBell's first attempt at breaking the Codetel monopoly stimulated two other companies to jump into the fray. I had an opportunity to consult in the formation of both companies. One was started by a local distributor of Westinghouse classical electrical products in power generators. His company was called All American Radio and Cable, a spinoff from a company originally engaged in the transmission of telex and telegrams.

The other company, Tricom, was formed by a family controlling the most powerful newspaper and publisher on the island. This family initiated international transmission with a satellite dish from a military airport in the Republic and went on to offer cellular service from there.

Today there is lively telecom competition on the island with several companies offering cellular and data service. I understand that the two story edifice has long since been demolished, and my beloved señor Semorile departed the earthly scene.

Telephony on Miami's South Beach

The South Beach scene in Miami was the coolest, most glamorous place in town. In the late 80's, early 90's a popular TV series, Miami Vice, was filmed primarily in Miami South Beach. The chain of hotels and restaurants, along the famous Ocean Drive, were aging structures of an architecture called *art deco*.

The city wanted to preserve the look as having the most historical, most tourist appealing characteristics.

With aging structures came aging phone systems. A partner that joined MicroBell was a telephony



type expert with strong connections to the resort industry in South Beach. We advertised on the local (Bell South) Yellow Pages what was then known as *telephone interconnects* business service. These included small switching systems (PBX's) equipped with operator switchboard, smart phones in the rooms, and billing systems that would track and bill customer long distance calls. Some of these systems were integrated with room

billing systems providing clean total bills to present customers upon checkout.

AT&T, my alma mater, was marketing a so called hospitality suite. It was my first choice, but cold reality hit when I compared its cost to a competitive package by Mitel, a Canadian PBX company, and comparable technology from South Korea.

I travelled to South Korea to explore outsourcing the manufacture of some telecom and computing equipment.

After one weeklong visit, the mission turned out to be unproductive because their integrating software was not mature or sophisticated enough to fit into our marketplace at that time.

It was a memorable visit: the hospitality of the Koreans was outstanding. Shown below are some pictures from that trip. The gentleman with the big hat offered to be my "spiritual advisor." On the visit to the demilitarized zone (DMZ), the smiling border police was assuring me that we were on the friendly side of the DMZ.

Korea was a fascinating and strange culture. I learned their habit of bowing with respect to older



people and removing my shoes upon entering any restaurant. However, I could never quite adapt to their favorite herbal concoction called "kimchi."

Upon my return to the states, I used my old Canadian connections to strike a deal with Mitel which offered a very competitive and sophisticated product most suitable for our market.

All of a sudden we were installing Mitel PBX's all up and down Ocean Drive in Miami Beach. We expanded

to serve some brokerage houses and international banks.

The payroll system and telecom business in the Dominican Republic were no longer commanding my attention. I left the business in the hands of trusted lieutenants, but they were incapable of building on the business and grow it to recognize changing economic circumstances.

One of the external factors was the introduction of NAFTA, the North American Free Trade Association Agreement signed by President Bill Clinton. This Agreement gave Mexico preferential treatment in manufacture of apparel. Dominican Free Trade Zones began a long term declining trend. The Dominican Republic had no Plan B to encourage development in alternative industries.

The Miami telecom interconnect business was coming along nicely until I received a letter from Bell South Atlanta Headquarters advising me that MicroBell trade name was in violation of trademark laws and that we had X number of days to cease and desist using that name in our current business.

This threat came when we were already two years in the business, and advertised it in their own Yellow Pages. I was furious. Furthermore, having been on task forces dismembering the Bell System, I knew that the BOC'S had a tenuous hold on the name *Bell*. Indeed, several BOC's had dropped their Bell name altogether.

I decided to fight. My theory was that if we managed to get to a jury trial we would win.

Soon enough, in a few weeks a lawsuit landed on my desk. I scurried around to find a lawyer brave enough to take on a giant company on a trademark issue. He was a real tiger, but he insisted on taking along a buddy who was an expert in trademark laws.

Legal bills began to pile up. So was my blood pressure. Both parties had the right to engage in some super expensive practices called interrogatories and depositions. My lawyers were supposed to go to Atlanta and spend at least a week, on our dime, browsing through mountains of documents seeking whatever evidence they were looking for. BellSouth lawyers had a similar right to browse through our files.

This turned out to be very distracting on the conduct of our business as we were busy collecting the requested, outlandish information they were looking for.

I learned some lessons about the justice system in the US: money is a powerful tool to grind the opponent into dust by chocking him with interrogatories and depositions. Forget the righteousness of your cause. You'll be road kill long before you have a shot at a jury trial.

Second: I started from a position of weakness. Winning meant keeping the name. Loosing meant giving up the name. There was no real penalty on BellSouth for loosing, except for out of pocket legal expenses.

Money was no object for BellSouth. They had three legal firms lined up against us: their internal legal department, a trademark attorney, and a law firm which represented them in Miami where the case was being heard.

My knees were beginning to wobble. I advised my attorney that we should seek a compromise. He called for a conference. He advised me to keep my mouth shut. When I ignored his advice, he had an office lady called me out of the conference room on an urgent telephone message. It turned out to be a message from my attorney reminding me to continue to keep my mouth shut.

Despite the crossed signals, the conference did produce a settlement: in return for MicroBell changing its trade name, BellSouth was to pay all of MicroBell legal fees, grant the new company one year free advertising on its Yellow Pages, and pay incidental costs related to changing names in all our brochures.

It was essentially a status quo result, except for the fact that we had to surrender the name after much grief and distraction. In retrospect it was not worth the fight. We retained the MicroBell name in the Dominican Republic and some other minor markets, but the forward thrust for MicroBell was compromised.

Our new name: *ISD Technologies*. We continued the interconnect business in Miami. However the focus of the company shifted more toward international consulting and long distance services.

Interlude for a Second Go Around

My frequent travels, maintaining two homes, one in New Jersey and one in Miami, to allow two teenagers, Eric (17) and Karen (16) to complete high school in New Jersey stressed personal life to the breaking point. Both teenagers were growing up somewhat rebellious, and continuously at war with each other. Wife Grace was left alone to manage them with mixed results.

Just one example of the rivalry between the two youngsters: Karen was spending an inordinate amount of time on the phone gossiping with friends. Eric, always technically savvy, tapped her phone line and wired it up to a large speaker that was broadcasting the chattering to the neighborhood. It being winter, windows were closed. The speaker could not be heard from inside the home. When Karen eventually discovered the ruse, Eric disappeared. This was just one of the episodes of sibling rivalries carried to the extreme.

Eventually Eric graduated from high school, and decided, on his own, to join the Army. It was a relief. Except that about three months later, Karen let the world know that Eric got into a fight with the sergeant at boot camp, was kicked out of the Army, and was roaming Kinnelon, our old New Jersey neighborhood, with his friends. Grace, alarmed, called me in Miami.

Fearing the worst, I called around Eric's all known whereabouts in the Army. I wound up connecting with some office in Fort Mammoth, New Jersey. Some voice that spoke with authority reassured me that

"Private Mattesich acquitted himself with distinction and was heading for some base in Texas to receive specialized training in radio communication."

What a relief! I learned not to believe a word of what Karen said about her brother.

I can gratefully report that brother and sister grew up to become very responsible members of society. They both are raising wonderful families. I just hope and pray that they will have not as many problems with their own children as I had with mine.

Once Eric joined the Army, Grace and I were able to sell the New Jersey home and reconstitute again our family in Miami. Karen was in her last year of high school.

Our house in Miami was in a gated community, built around a golf course, on the outskirts of Miami International Airport. The nearest established high school was in the adjacent community of Hialeah. This was definitely a low end neighborhood populated by legal and illegal immigrants. Not much English was spoken there. We visited with Karen her prospective high school. It was a disaster. Graffiti, mostly in Spanish. Garbage was strewn all around. A mixture of cheap apartments and warehouses dotted the neighborhood. It was a real depressing place.

We learned that the only decent public high schools were either in the far north or far south ends of town. North of town had a heavy Jewish population. They were known for treasuring education. Schools in their neighborhood were sure to be top notch.

My brother Nick had an apartment in the upscale Aventura subdivision. The school in his immediate vicinity was the well regarded North Miami Beach High School. Karen became a resident of my brother's apartment, was admitted to this high school. Having a car, she was home frequently, a distance of about 18 miles.

The home in Miami was very close to my office from which I conducted my local interconnect and international consulting businesses. Wife Grace worked around the office for a couple of months, but she was growing increasingly distressed. She missed the stability of AT&T's income, benefits, and predictable life style. She particularly disliked Miami and its heavy Hispanic influence. Furthermore, she harbored a dislike of business practices... and businessmen in general. She abhorred business risk.

We owned a lot on the water on Marco Island. She wanted us to retire there and forget the whole business.

I was about fifty year old and absolutely not ready to retire. I loved living dangerously on the leading edge of technology. I thrived on the international atmosphere of Miami. The outcome was an amicable divorce. She retired to the west of Florida. I charged on with the business. Karen elected to stay with me for the duration of her last high school year.

After a few months, I started dating again. The social and cultural scenes in Miami were dominated by the Cuban and Jewish communities. Most of my business acquaintances were Latin, but I felt intellectually more comfortable in the Jewish world. I met and dated several Jewish women who were generally highly educated and sophisticated. I found them, however, to be narcissistic and overly conscious of appearances. They were more interested in learning about my wealth and

social standing than discovering who I really was. One easy way of breaking out of a relationship was to show up for a dinner date in an old pickup truck. I had fun observing these women reaction.

I travelled frequently to the Dominican Republic. One night I invited my business manager, Omero, and his wife Carlotta to dinner. I related to them how lonesome single life was. Half facetiously I suggested that I needed to meet some nice Dominican girl.

Silence.

Carlotta all of a sudden brightened up.

"I know who!" she exclaimed.
Her husband, with a frown on his face, retorted

"Who?"

"Frinee!" she explained exultantly.

"No, no. That's one, busy, professional lady. I don't think she will be interested in spending a weekend with a *gringo*."

"Let me handle it. I know Frinee better than you," she retorted.

Carlotta was Frinee's college mate. They graduated together as Civil Engineers. Frinee had her own prosperous construction business. She was in the process of building dozens of Mormon Churches and was finishing a couple of private mansions.

She was indeed one super busy lady. I was intrigued.

Carlotta managed to convince Frinee to come and visit her for a few minutes and meet her husband's American boss. She did.

According to her first impression, which she shared with me later, I looked like a middle aged geek: glasses with thick, dark horns, a polka dot shirt, and blue jeans with colorful belt.

"This guy does need the touch of a woman," she taught.

Carlotta, eager to arrange a match, conned everyone to join the whole family on the beach the following week. Frinee agreed. We had a great time, Carlotta's two children in particular. The beach encounter gave me a chance to bond with Frinee. It was smooth sailing after that.

I eventually was introduced to Frinee's family. I introduced her to mine in Miami. The situation was getting pretty serious. We even moved into a rented apartment in Santo Domingo. But I was still not sure I was ready to take the big jump. I needed a cooling off period. She was in a state of shock.

Driven by inertia, I resumed dating Jewish women in Miami. Every experience was more disappointing than the previous one. One night I came home truly exasperated. I commiserated with Karen.

Karen, the only child left in my house, then gave me a bit of wisdom that changed my life:

"Dad, the woman for you is Frinee!" I was startled.

The main concern about bringing another woman in the house was the reaction of my children. I knew that bringing a woman in the house that would be rejected by my family would be a formula for another breakup.

By six AM the next morning, I was on the phone to the Dominican Republic. "Morning Frinee, how are you?" I started innocently enough.

"Frinee, I like to marry you, and I like you to move to Miami". I thought I heard a soft sob on the other end.

"Are you real?" is what I thought I heard; then came the more self-assured

"Why not? Please call me back when we are both awake."

I called her back a few hours later. She was ready. I told her my family was ready to welcome her. I felt we should marry privately and confront the family with a *fait accompli*.



Within a week Frinee was in Miami. We went to the clerk of Court to get the marriage license. week later we were cruising on Miami Biscayne bay aboard my attorney's yacht. The attorney performed the ceremony, notarized the license and Frinee and I were officially married. Our formal wear was a swim suit.

My entire family welcomed Frinee. My mother, in particular, who was unhappy with my first wife, daughter of her very best friend, because Grace was sort of aloof, and wanted to keep a distance from my family. Frinee, on the other hand, came with

strong family roots of her own and was eager to be accepted by her new American family. She quickly learned enough Italian to communicate with her new mother in law.

There were inevitable adjustments to be made. Frinee's thriving construction business in the Dominican Republic took about a year to wind down. Then she had to adapt to my telecom business, including travel to the four corners of the world, and dealing with situations that were cultural in nature, and quite alien to her.

Thirty years later, the simple ceremony on that boat is still being honored.

Global Telephony under Stress

Phone companies around the globe were steeped in the tradition of government owned monopolies.

Wind of change buffeted their cozy realms. Digital technology made great strides. It was cheaper and better than existing analog technology. Pressures were building to open up international communication to competition. The US was leading the charge. Countries were fiercely resisting the trend as any relaxation threatened the most lucrative part of their business.



As a student of evolutionary technology affecting the development of modern telephony, and new business models, I became a sought after speaker at international conferences mostly held in Miami and Central and Latin America.



As a member of the Caribbean Telecommunications Conference, I was also attending conferences around various islands of the Caribbean sponsored by local

governments which owned their own phone companies. My message of opening markets to competition and new technology was receiving a mixed welcome.

The entrenched bureaucracies were more interested in the fun aspects of the conferences than in seriously tackling the inevitable incoming changes.

The really disrupting changes on the horizon were international callback and telephony over the Internet, also



Formatted: Indent: Left: 0", Right: 0"

known as Voice over IP (VoIP). "Bypass" of the established and very lucrative international channels of communication was already under way via established privately owned satellites and private teleports. Although I came across as a prophet of gloom and doom, the audience felt that my presence was bringing some sort of immunity against the day of reckoning.



It was fun nevertheless. We were always treated to lavish parties and the best of local folklore. This scene was captured at an after dinner event hosted by the phone company for Trinidad and Tobago (Caribbean).

At one of the Miami conferences, I met two gentlemen from a Californian company called "International Communications Company," or ICC. They introduced me to a new opportunity in the then existing Soviet Union. This turned out to be a seminal event in my life.

The next section sets the stage which is necessary to understand and fully appreciate this unique, truly historical experience.

Back to Communism

Goodwill Games: the Afghanistan Connection

In 1979 the Soviet Union invaded Afghanistan. President Carter reacted by having American athletes boycott the 1980 Moscow Olympics. The Soviets reciprocated by boycotting the 1984 Los Angeles Olympics. The latter event, led by a remarkable organizer named Peter Uberroth, turned out to be very successful anyway, but our relationship with the Soviets continued to deteriorate.

Ted Turner, the flamboyant entrepreneur and founder of CNN, wanted to help rebuild bridges between our two countries. His contribution: sponsor an unofficial Olympic competition called *Goodwill Games*. To that end, he recruited one of Uberroth's chief lieutenants, a gentleman by the name of Michael Montanari. Michael was dispatched to Moscow to entice Soviet authorities to sponsor the Good Will games and to lay out the logistics for the first event to be held in 1986 in Moscow.

Michael, already well connected with Los Angeles movies scene, as well as officialdom in Washington, was soon making lots of friends in the Soviet establishment as well. He connected with Gorbachev and Boris Yeltsin. These gentlemen, soon to become major players in the dissolution of the then Soviet Union, and eager to reconnect to the US, gave Michael unprecedented access to the bureaucracy running the communist empire.

Back in Los Angeles, Michael became a partner of a freewheeling *International Communication Company*, which I will call "ICC". This company, funded by royalties connected with TV and entertainment technology patents developed by one of its founders, had ambitious plans for development of major telecommunication networks to serve third world countries. Focus was on established satellite technologies, as well as newer wireless, digital, and fiber optics based networks. It became obvious that the antiquated networks of the Soviet Union were a prime target of opportunity for ICC. Michael became the door opener.

At that time, I was the owner of a Miami based technology consulting company with active relations to phone companies in Europe and the Americas. In one of my presentations as a speaker at industry forums on topics related to the modernization of national telecommunications networks, I met the principals of ICC. They introduced me to the enormous business opportunities opening up in the Soviet Union under the enlightened new policy of "Glasnost" promoted by chairman Gorbachov. They invited me to join their team.

As a refugee from communism, I had the most dreadful memories of life under communism. The thought of ever visiting any of the communist countries again, in my lifetime, was only possible in my nightmares.

Yet, yet the ICC executives had some compelling stories to tell. One of the world's greatest adventures beckons. I was 52 years old. Adventurous. My children were grown up. Think of the Soviet Union as a "third world country?" With all those missiles pointed at us, they could destroy us many times over.

The temptation was too great. How does communism look like two generations after my original experience? The empire was really in the throes of some major changes. Americans went to the moon. I could go to the Soviet Union.

Deal!

Moscow

Arriving on a dreary, dark, cold Moscow on an overnight flight from sunny Miami is itself a jarring experience. Met by "handlers" at the airport, I was driven by car to a nondescript building near the center of town. Along the way, we traversed broad boulevards, little traffic, long lines of shivering people outside stores doling out basic foodstuff such as bread, milk, sugar, flour. Miles and miles of huge, monolithic apartment buildings designed for ants, not people.

The other jarring scene was the site of road gangs made up of old ladies, called "babushkas." They were sweeping streets, tending to landscapes, moving dirt with wheel barrows, energetically. Not one man doing the menial work.



Upon arrival at the meeting place, I found Michael leading a group of about twenty people into a discussion of what we wanted to accomplish in the next two weeks. He was listing the projects, assigning people to tasks, and laying out the schedule.

Except for Michael and me, all other participants were Russians. The collage shows the Russians who

actually staffed the ICC office in Moscow. Clockwise from upper left, they were:



Vladimir "Vlad" Sheshenko, Director for ICC Russia. He was my constant companion on travels across the Soviet Union. Cool, calm, loyal, always composed, and an excellent negotiator. He became a great friend. He understood the mindset of the communist bureaucracy he grew up with. As a Russian trained engineer, he easily related to, and was fascinated by, the western technology we brought to his country.

- Olga One. She was the executive secretary for the company. I never captured correctly her last name. Speaking flawless English, she scheduled all events and organized our travels making sure we were treated as special guests of the government, and not as gullible tourists. The difference in travel costs and accommodations quality was enormous. When I once missed a flight, I was invited to spend a night in her apartment. She lived with her teenage daughter in one of those dreadful tenements ringing the periphery of the city. She paid a pittance in rent to the government, but building maintenance, grounds landscaping, and heating were virtually nonexistent. The black and white TV had only two channels, both spouting government propaganda. I spent the evening shivering and bored.

Olga related to me why she detested Raisha, Gorbachov's wife, and the generally miserable life under communism: scarcity of basic goods, the incessant propaganda and lies on TV, long lines to stores with meager supplies, a listless and corrupted bureaucracy, a decaying transportation and communication infrastructure (Moscow subways were an exception).

Curious about how teenagers amused themselves on weekends, the daughter explained that their main source of entertainment was visiting museums. I was impressed. It would probably be the last place on earth my own teenagers would think of spending their weekend.

-Olga Two. Assistant to Olga One, (Olga is obviously a popular name in Russia).

- Allah. This sounded like a Moslem name for an all-around, sophisticated Russian lady. It was probably a nickname. She introduced us to various government officials. Her role was not too different from that of a protocol officer in the State Department.

There were several other people with formal and informal connections to ICC. They were scattered throughout the region in a variety of supporting roles. The Moscow staff was instrumental in weaving this web into a team that established a wide, if thin, footprint for a small company into a vast and resource rich region.

The Business Model

At that time, there were no private enterprises in Russia. Our "Partners" were state controlled institutions such as Moscow State University, official telecom enterprises, the ministry of communication, city and state entities throughout the Soviet Union. We even counted the Admiralty of the North Sea Fleet, located in the then city of Leningrad, as one interested party.

What a motley collection of people, organizations, and interests. With "Glasnost" being the new policy of openness and transparency aimed at reducing corruption in government, they were all looking to the West for modernization, and to establish their own economic and political identity. It was an exhilarating experience. I was treated more like a savior than the technocrat I was hired for by ICC.

All business was transacted under the umbrella of "joint ventures" (JV) negotiated between ICC and the various state enterprises. Some joint ventures involved two parties. Often, however, multiple agencies of the government were involved either for securing a license, the granting of a right of way, the type of final customer, or the method of payment and financing, or billing. Generally every group involved wanted a cut of the benefit or revenues to be generated by the project. It was my job to negotiate and document these complex joint venture arrangements and have them signed off by all the responsible parties to the JV.

It was not unusual for the JV to include foreign partners, suppliers of various technologies such as Siemens, Alcatel, Ericsson, or parties to various providers of satellite and their network services such as Intelsat, Inmarsat, Intersputnik, Motorola, and so on.

ICC's role was to provide telecom consulting, design broad outline of business and technical components of large scale telecom projects, develop financial plans, secure funding, coordinate design, delivery, and installation from foreign suppliers such as Germany's Siemens, Sweden's Ericsson, and France's Alcatel. Cold War export restrictions prohibited most technology exports from the USA. The Russians strongly resented these restrictions now that they declared themselves peace loving and friends of the USA.

The Soviet's role in the joint venture was to provide the legal framework for the project, all the resources of the state, and payment for services and product supplied by ICC.

Another curious aspect of doing business with the Soviets was their compulsion to make decisions

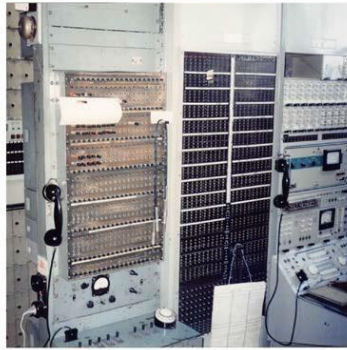
on the spot with the (regional) prime minister and his entire council of ministers present. They expected to sign a document, and, at the least a letter of intent, on first day; certainly no later than during the next day resumption of the meeting.

The uncomfortable aspect was that we were signing off on multimillion dollar deals without the benefit of study, deliberation, and technical and legal counsel. Often it was based on some document that I improvised on the fly, based on incomplete knowledge and lot of assumptions. The typical deal included not only telecommunication infrastructure enhancements, but also complex bartering tradeoffs to pay for the modernization program.

In structuring Joint Ventures, I never used the word "profits". It was equivalent of an obscene word in the Russian lexicon. Friendship, and trust, and an equitable distribution of the benefits of the JV was less offensive to Soviet businessmen who were trained to believe that "profits" were at the root of all evil in capitalism.

ICC represented both manufacturers of technology products, as well as investors interested on return on their capital. Problem was that the Soviets and their various institutions were broke. Their currency, the ruble, was essentially worthless in the Western world. The most important way for the Soviets to pay for their ambitious modernization projects was to enter into bartering transaction with the West. Russia in particular was blessed with enormous natural resources: oil, natural gas, timber, minerals of all kinds, including gold in the Far East.

Production of consumer goods was substandard by western standards and limited to the essentials of life. The powerful industrial machinery of the Soviet Union was focused strictly on building up their military.



I visited and analyzed many of the Soviet communications nodes.

The pictures taken from some regional capital in Siberia, show a typical configuration of a telecom office located near the central government building. Microwave antennas on the roof probably connect to a nearby satellite teleport.

Low capacity fiber optic lines provide

intra city connectivity to smaller offices. Most of the inside technology was of dated European manufacture or home made. More modern digital technology could be introduced by creating overlaid ISDN networks, a solution particularly more attractive to larger cities. I got quite familiar with their telecom infrastructure. I was comfortable with helping the Russians on the technical side.

ICC extended my role to that of a bartering agent. I was expected to not only define the project, but also to negotiate financial terms which inevitably included some forms of large scale bartering. This was an expertise which was totally foreign to me. I had to very quickly learn global trading patterns on a wide variety of commodities like timber, coal, gas, oil, mineral of all sorts, including gold. ICC assured me that I would have the full backing of an experienced, international trading house located in Switzerland. Reassured, I charged on.

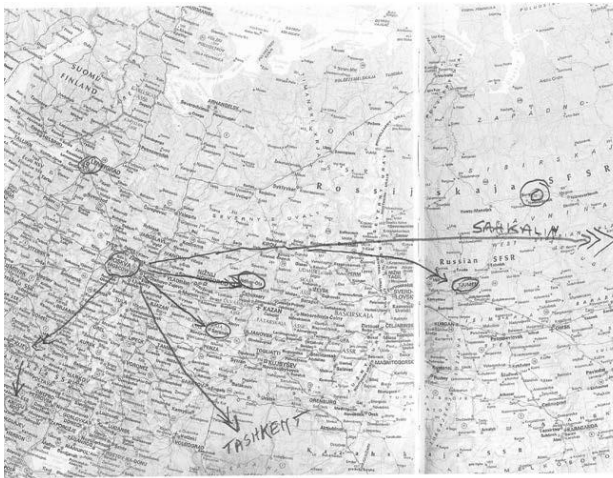
As I describe a specific project below, this blessed sense of security led me into some situations which I would now consider bizarre.

Most of my projects were concentrated in three major metropolitan areas: Moscow, Leningrad, and Kiev (Ukraine). Siberia, however, was the richest region in terms of natural resources. It wound up attracting most of my time and attention.

Moving About the USSR

Before I launch into a description of some of the most significant projects I got involved within the Soviet Union, I want to give the reader a flavor about moving about the countryside in the 1989-1992 time frames, a period covering the demise of the Soviet Union, and its chaotic aftermath.

The locations visited multiple times are marked up on this map. Moscow was serving as the most important hub. We generally took a couple of days in each location, which we reached either by overnight train ride, or the official government airline, Aeroflot.



Checking into hotels called for an excruciating paper check: was the passport in order, was the visa correct, were the travel tickets in order, was the reservation recorded correctly, were all dates correct, was there any flag after my name

on their list of suspect visitors, and so on.

The passport was retained by the clerk until departure. This ritual was repeated at every hotel we checked into, or domestic flight we ever took: that only meant the infamous Aeroflot.

I took about a dozen trips to Russia, each lasting about two weeks. The scariest experience was the departure on international flight. After passing a gauntlet of multiple checkpoints, and finally getting a seat on a plane, a pair of border guards would board the plane, each with a machine gun slung across his chest, would very slowly and menacingly walk down the aisles, study every passenger's face, and walk the length of the plane. They would even check the toilet to be sure there was no one there. After they finally alighted, the doors closed, and the plane started taxiing, and we were finally airborne, I was able to take a deep breath, and look anxiously for the flight attendant: I wanted the very first drink.

I had nothing to fear as guest of the Soviet Government, but this obvious show of police force was nevertheless intimidating.

There were three types of hotels in the country: a few tourist grade hotels in the major cities of Moscow and St. Petersburg, formerly Leningrad. Another set of luxury hotels was reserved for the communist party elites, the *Nomenclature*.

Most of the countryside had no formal hotels. What passed for hotel were really guest houses, rustic, decaying structures, a cross between hunting lodges, and a typical home in the country. Many of the sites we visited probably hosted Westerners for the first time in their existence.

Plumbing was always an iffy proposition. Hot water was rare. Toilet paper and toilet seats were nonexistent. It was wise to carry emergency toilet paper along.

Out in the countryside, one is at the mercy of faith. I timed a visit to a bathroom to a location I knew was more than a hole in the ground.

For an empire built on a centralized, command economy, it was remarkable how inconsistently plumbing worked across the country, if it worked at all. It took

a totally random guess whether the hot water was on the right or left knob, whether volume was controlled by turning the knob clockwise, or counterclockwise, or whether one had to push the whole assembly in, or out. If you managed not get scolded, for sure you would be paralyzed by a blast of icy water... or maybe left with the knob in your hand.



Siberia, and most of Russia, being far north on the Northern Hemisphere, sees precious little sunlight and long nights.

The gloom and doom of the outside is nevertheless projected on the inside of most hotel establishments. Lights were either not functioning; were of low wattage as to be no more helpful than a candle; or were located in the wrong place. For instance, reading lights were at the foot of the bed, the bathroom light illuminated the back of the head not the face. Shaving was a hit and miss proposition. Such lights were activated by switches in the most unlikely places. As you enter a dark room, you will be groping for a switch. [Forget the most logical place

adjacent to a door.] It may be a pull chain in the middle of the room, or behind a mirror, or a lamp table in the corner of the room, or you may just step on it.

Yep! Some switches were *foot* operated. If you happen to be wet, you could easily get electrocuted on the prevailing 240 volt systems common in Siberia.



[And when you check out, there is no way you can walk away with the room key. The facsimile depicted here is actually all metal. Minimum weight is one half pound. If you forget to turn it in, you will probably set off a siren at the next airport you are trying to take off from. Good luck explaining it to an agitated Russian speaking policeman at the gate.]

I usually left sunny Miami at 3PM, a balmy 80 degrees, gently swaying palm trees, and arrived in Siberia at 4PM the next day. Exiting the plane, I was confronted by a blast of arctic air. A bus was waiting on the tarmac. A fur hat and a heavy scarf protected me as I stepped off the plane and into a waiting bus.

The terminal, less than a mile away, was barely visible in the blinding snow storm. Pole mounted lights in the distance, swayed in the howling storm, scattered light via the falling snow flakes in a shower of confetti, swirling capriciously around the poles with no discernible pattern.

Transportation Russian Style



Cars were the primary mode of transportation within cities. The plush, government owned Octoberskaya hotel was our home in Moscow. My delegation was moving around town by Zil limousines.

An entourage in tow, we visited numerous ministries and governmental agencies. We quickly established a network of relationships which straddled across growing fault lines developing between nascent Russian nationalism headed by Boris Yeltsin, and the weakening Soviet structure headed by Michael Gorbachev.

We learned to navigate safely between the warring camps.

To weave joint ventures across international lines we had no choice but to cultivate both sides. No matter what business transaction the locals were promoting, cross border financial transactions were controlled by the Central bank, still firmly in control of the Soviets. So were import/export licenses for technology, natural resources, as well as entry/exit and freedom of movement across borders.

The dreaded KGB secret services were always in the background. We took it for granted that our rooms were bugged and our communications were monitored. Michael Montanari was the one most wired into the political sensibilities of the Soviet establishment and guided the team into focusing on the business side of our mission.

In Moscow, we occasionally took the subway. Having been a frequent rider of the graffiti splattered New York City subway; I was most impressed with Moscow's first class subway system. Art work graced the walls. The platforms were wide. The escalator took people deep

underground. The system was designed to act as a shelter for the population in case of atomic attack.

Trains were the most common mode for inter-city transportation when the target city was within an overnight ride from Moscow. This meant dinner in Moscow and then being driven to the train station where a sleeping cabin was already reserved.

Long flight, time zone differential, plenty of vodka, strange new environment contributed to making the trip a semi delirious experience. When the train lurched and clanged, I would suddenly sit on the edge of the bed and ask myself what was wrong on this plane. It took a few seconds to realize I was riding an antiquated train, not a plane.

The next morning, I would step onto the platform with my companion, usually my new wife Frinee who acted as my personal secretary. We were greeted by a delegation of two men plus a lady with a bouquet of flowers for Frinee.

"Welcome to Kiev, Mr. Mattesich, I am Professor Yuri Bunin, my partner Vlad Timko and Tatiana Klebic" Yuri said.

"We will take you to your hotel to freshen up. We will pick you up for lunch and this afternoon meeting."

One night in Kiev, Ukraine, we were called to an urgent meeting in Moscow to be held as soon as we arrived. The quickest way was to take the overnight train to Moscow.

Unfortunately, it was too late to reserve a private cabin. My Russian secretary bribed a train conductor to relinquish his own cabin. It was located adjacent to the common bathrooms at the end of the wagon. A small platform connecting the bathrooms to the passenger cabins went right by the conductor room. Smokers congregated on the platform, chatting all night. Doors continuously slammed in and out of the bathrooms. Toilets flushed in a cacophony of sounds. Both smoke and sounds penetrated our Lilliputian cabin through the wide open bottom of the door. Frinee and I hunkered down on a tiny bunk bed, keeping absolutely quite, lest we be discovered by the chatty, smoking (and drinking) crowd outside our door.

When we traveled to some location in Siberia, the only viable transportation was via state



airline Aeroflot.

We made multiple stops on a trip from Moscow to the island of Sakhalin in the Russian Far East, eleven time zones away, right above Japan. On the way, we picked up locals such as the

Russian war veteran on the right,... and their animals: dogs, chickens, rabbits, fowls. I had an aisle seat. All of a sudden, I felt an extra warm feeling travel down my leg: a doggie mistook my leg for a tree stump.

Sakhalin was a close island with several military installations. The September 1, 1983 downing of Korean Airline KAL007 occurred over this island. My delegation was probably the first Western delegation to reach Sakhalin. The only other Western visitor was an evangelical missionary. I never understood what he was trying to accomplish in such hostile environment.



Upon driving to some nondescript building in the center of the capital city of Yuzhno-Sakhalinsk, my delegation checked into what passed for a hotel. I was eager to jump into a warm shower. The check in process was agonizingly slow. At the end of this torture, the receptionist advised us that there were really no rooms available. We would have to wait for guests to check out. Besides being dead tired, I was disappointed that Sakhalin had nothing better to offer. The next day we were supposed to meet with the Governor of the island and its economic development team to explore how we could bring investment to help develop the presumably fabulous energy resources.

My task was to explore ways to improve communications with the West. Connection via nearby Japan was obviously a natural gateway. This avenue was, however, not politically feasible. Russian and Japanese had competing claims to the island. The wounds of WWII were still too raw.

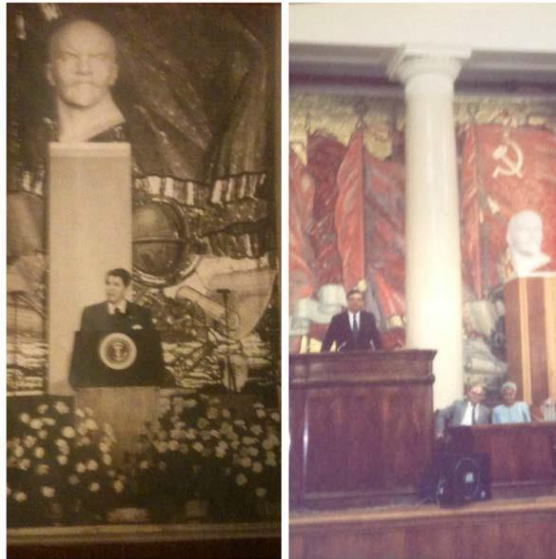
To open up the island to further investment from the West, we considered beefing up the utilization of wobbly Soviet satellite and new terrestrial microwave links that connected the capital to prospective sites of timber processing and offshore gas exploration.

One curious factor that I learned on this assignment that although we would prefer lower cost Soviet owned satellites in our networks, they were not as well stabilized in orbit as their Western counterparts. That meant that ground antennas would have to work harder to track a constantly oscillating Soviet satellite, resulting in much higher cost ground components. Western satellites like the Inmarsat constellation offered a more economic solution. It was adopted as a preferred solution.

The island was so attractive to foreign energy companies; they quickly gained a foothold in the local government and rapidly took over further investment in the development of the communication infrastructure.

Moscow State University in Pursuit of Its Own Silicon Valley

Moscow University had various technical cooperation projects, mostly in the embryonic stages, with other world renowned institutions like Princeton, Yale, Stanford, Los Alamos Laboratory. They had an enormous interest in participating in the budding Internet network which at that time connected university computing centers



under strong leadership of the US Defense Department. The other goal was to create and support a technical park, a-la-Silicon-Valley to foster and incubate new technological ventures.

I was invited to give a lecture at the main auditorium of the University, famous for being the venue used by Ronald Reagan when he addressed the people of the Soviet Union on May 31, 1988.

My presentation was focused on business/state/academic cooperation which made the growth of techno parks possible. My model was primarily the so-called highway 128 corridor ringing Boston and centered on Harvard and MIT, the area I had most experience with. The route 128 corridor was mostly populated by offshoots of established technology companies like GE, DEC, Bell Labs.

Silicon Valley was populated by more freewheeling entrepreneurs and venture capitalists. It welcomed talents worldwide. They were jumping venture to venture or created a venture of their own. Silicon Valley was populated by free spirits, risk takers, innovators. Freedom itself was of the essence. I couldn't fail to note that Russia was a far less open society, more suspicious of foreign talent. Their challenge ahead went far beyond the technical excellence which was definitely plentiful at Moscow State University.

From a more immediate perspective, and more to the point of my mission, I reviewed telecommunications infrastructure in and around the Moscow metropolitan area and likely improvement strategies for using Moscow University as a communication hub to support the proposed techno park, and improve their communications to the venture capital and scientific counterparts around the world. The outcome was a task force to be formed and led by University officials to formalize their drive toward a "techno park."

ICC agreed to facilitate the process by organizing cross-cultural visits to academic and joint venture capitalists in the US. As for communication projects to serve the area, it became the focus of joint ventures to be driven by telecom officials in the Greater Moscow area.

Kiev Polytechnic Institute

The other major Soviet institution of learning ICC connected with was The Kiev Polytechnic Institute, also known as the *National Technical Institute of Ukraine*. The institute had similar ambitions to Moscow State University: to create and support a techno park a-la-Silicon Valley.

Toward that end, they formed a venture called Astra, which served as an umbrella for a variety of other organizations. It was headed by Professor Bunin.



Astra turned out to have ambitions beyond the techno park. It became an affiliate of ICC. It spearheaded all our ventures in the Ukraine. The organizational meeting called by the professor, shown here sitting next to me at the head of the table, was called to formalize the relationship to ICC.

Of the thirty or so participants, several were on the faculty of the Polytechnic, but there were at least a

dozen other state entities represented there, including the local phone company, the mining ministry, and the department for the development of missile technology.

Someone in the audience claimed that the Ukrainians were the prime suppliers of such technology to the Soviet Union. They were now eager to nationalize it and to launch their own satellites into space.

I narrowed the initial scope of the ICC-Astra venture to telephony and academic cooperation. Other fields were tangential to our core mission and expertise. They would be considered on a case by case basis.

Professor Bunin was enthusiastic about the outcome of the meeting. He invited me to give a presentation to electrical engineering students. The proposed subject: major technologies impacting future of telecommunication. I was delighted to oblige.

It is a subject dear to my heart. Major strides were being done packing more wavelengths into existing fiber optics (DWDM). Costs of long distance communication were expected to drop precipitously.

Coupled to the semi-religious Moore Law, which postulates that power of computers doubles every 18 months while their cost is halved, DWDM technology promised to revolutionize the economics of telecommunications. The whole world will become a village: calling your neighbor is going to be as easy and inexpensive as calling someone in a different continent. Concepts of local and long distance communications were fast becoming obsolete. The introduction of Internet Protocol (IP) also was expected to blur the distinction of data, voice and television allowing for the creation of true multimedia networks.

The students were fascinated by my messianic zeal. They asked for a group picture to memorialize the event. I was glad to oblige. The ubiquitous Lenin head served as a backdrop.

He was not part of the future contemplated by these youngsters.



Adventures in the Russian Timberlands

Mordovia and Mariyskaya are two small republics within the larger Russian Republic, 500-600 miles southeast of Moscow. They were the first sites I reached via an overnight train ride from Moscow.

When I arrived in their respective capitals, Saransk and Josh Karala, I was greeted by a local delegation which drove me to a centrally located hotel to refresh, rest, and lunch.

These Republics are heavily wooded. The production of timber and wood products and its derivatives are their main staples. My first mission was to review the telecom infrastructure, identify their immediate needs, prepare a plan, a budget, set up a JV, a document that the Russians liked to call the



"protocols", probably because they were official government document signed by the prime minister, or other high government official.

A couple of young engineers came to visit me in the hotel room. They brought along schematics of their city and regional telecom networks. They shared their plans for expansion and a wish list of modernization and expansion goals.

In the next couple of days I was picked in a limo for a drive to the government building. The conference rooms were full of senior officials. By the time of those meetings I had a general idea of the scope and cost for an infrastructure modernization program



I was met by economic development teams and top officials of their respective departments. They had such titles as Chief Director of Chemical Plant Services, Director of Agriculture, Chief Communication Engineer, Director of State Planning Committee, Chief of International Economic Links of the Republic, and so on.

The next meeting was with the Council of Ministers. The Prime Minister was in attendance. . [Note the drape at the far wall. It was covering the ubiquitous portrait of Lenin. The people were ready to move beyond Communism and eager to do *bizniss* with Americans.]



After we summarized and proposed a Joint Venture for the modernization and expansion of the network infrastructure component of their plans, the Prime Minister brought up a laundry list of needs:

- Timber processing equipment.
- Co-production of consumer electronics and appliance such as refrigerators.
- A training program for his engineers in the US.
- A waste processing plant.

He estimated he needed \$ 250,450,000 of investment in his ventures. I estimated the communication component would require about \$ 12M.

The Minister of Forestry got down into the weeds. He described the problem trucks and heavy equipment dispatched to timberland needed better radio equipment to communicate among themselves and the central dispatch location. A mobile system was essential in the winter: roads were frozen and extremely dangerous.

I signed a Joint Venture Agreement for the communication component. The Russians wanted co-production agreement with western companies whereby the western company would invest the money and in return they would get a share of timber, coal, oil, hemp.

I told the audience that I would express their non-telephony needs in the form of a Memorandum of Cooperation which I would bring back to my partners in Moscow and Los Angeles. They had significant connections to non-communication industries.

The next big gathering of ICC and its partners was actually held at the Cosmo hotel in Leningrad. I brought up the exploration of the timberland republics. We winnowed down the investment that we may be able to support: \$ 80,600,000. Major investors were present at the meeting. I believe we had the horsepower to exert our presence in timberland. The projects themselves were going to be outsourced to other parties.

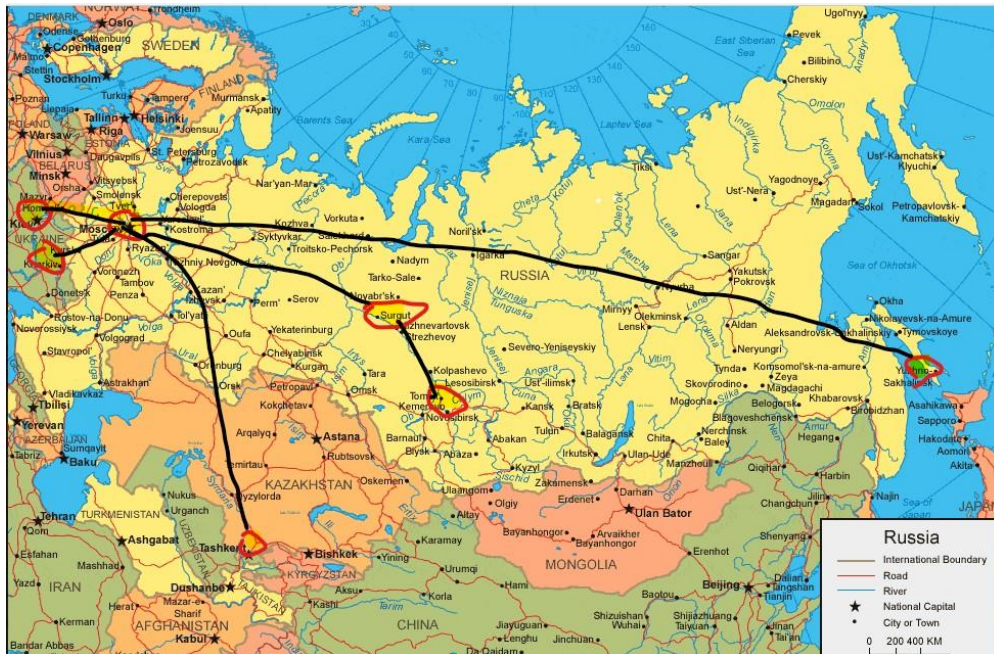
The next day at a meeting with Leningrad telephony company officials we considered the introduction of a modern cellular system. Their system was first generation analog. Under consideration was whether we should drive toward American standards using technologies such *TDMA* and *CDMA*, or the widely used European system known as *GSM*.

Each had adaptation issues to Leningrad. For example: available frequencies (the military was gobbling up the most desirable frequency ranges), usability of existing towers and electronics, reverse compatibility with old system. I studied the alternatives. At a subsequent meeting a couple of months later, I brought the recommended solution to the same officials. It was *GSM* based.

At a private luncheon with a city official, the gentleman offered an exclusive operating license with a caveat: ICC would have to pay a substantial monthly stipend outside the bounds of the contract. This was my first introduction to governmental corruption. I wrote the project off with the full backing of my partners at ICC.

Business Siberian Style

One of our missions was to bring telecommunications to remote regions of Siberia which attracted major international petroleum companies. The Tyumen region was reputed to have more oil and natural gas reserves than Saudi Arabia.



Surgut (population 275,000) in the Tyumen, is at the center of the oil producing region. [Surgut is located about the center of the above map, just South of the Arctic Circle]

Most of the fields were actually stretching north of Surgut toward the Arctic Circle.

The opportunities inherent in the development of the region were immense. US Energy information Administration statistics (eia.gov) ranks Russia among the three top energy producers: US and Saudi Arabia are the other two. ICC decided to participate by going a step beyond the forming of a conventional joint venture. It actually established a joint stock company, whereby ICC acquired equity in a company jointly with local government entities. The company was *Telesimtes*. I was elected President.



The locals treasured my connection to America. The city of Miami had a particular hold on their imagination: they craved a visit to the city in the sun, glamorized in the movies, a favorite hangout of the stars, moguls, and assorted James Bonds. They were eager to engage in any business which would give them an opportunity to visit Miami. We established a new office in a two-story wooden structure which also doubled as my residence in Surgut.



The English speaking secretary prepared double sided bilingual business cards. She had a gold mine of information at her fingertips. Particularly helpful were the English profiles of the people I interacted with.

The staff was made up mostly of local telecom engineers. The gentleman on the right in the picture below is Mr. Chereda, He was named Executive Vice-president. With a really bubbling personality, Mr. Chereda's ambitions went far beyond telephony. He was the number one cheer leader promoting Surgut as the center of the universe: not unlike his kindred spirit, Floyd Rohner, who claimed another unheard of town, Clinton, Mississippi as the center of the universe.



The force of their personality, their unbounded energy and enthusiasm, their resourcefulness, the pride in their community and their country made their respective claims plausible.



In this God-forsaken country, where Stalin loved to ship his enemies (two ex-gulag concentration camps were not far), with unremitting cold, almost perennial darkness, to find life, hope, enthusiasm, and unbounded faith in the future was



surprising. These people's enthusiasm was only surpassed by their warm hospitality. We bonded as a team. The cynicism, corruption, double dealing, common in the big cities of Moscow and Leningrad did not cross the Ural Mountains.

We went to work very quickly. We reviewed the network surrounding the city and its most immediate needs. We sketched out a plan to increase the switching capacity to serve both intra city traffic, as well as beefing up transmission capacity north to the oil fields, south to the Tyumen

regional capital, and west to Moscow to facilitate communication from headquarters offices to the oil fields north of Surgut.

The signature technology to be used in the hub was a new switching system called *System 12*, designed by ITT, and manufactured in Belgium. It was my responsibility to arrange its introduction into Surgut, the first such application in Russia. It took a side trip to Brussels, the home of ITT subsidiary Belgacom, to define broad engineering requirements and negotiate financial terms, including very generous credit conditions. The Surgut application was offering Belgacom a door into the vast Russian market. We also agreed to a tentative deployment schedule, including a training program for Surgut engineers in Belgium.

Upon returning to Surgut, news of the System12 deal called for celebratory toasts. Bringing such advanced technology to the center of Siberia, home of Stalin's infamous Gulags was a major turn of fortunes for this town. It certainly justified Mr. Chereda's faith and pride in his beloved town.



A few days later, we took time out to picnic on a rickety boat up the Ob River. A fisherman sold us his day's catch. We assembled on the uninhabited bank of the river, We set up a bon fire, placed a kettle astride the fire, filled it with water from the river, boiled it, dumped the fish into it, while others set up a table, covered it with a cloth, placed some logs on the periphery, and, voila!, we were ready to feast on that mercury laden boiled fish, cucumbers, local veggies, caviar, black bread, and the ever plentiful vodka.

We had some extra treat in the form of musical entertainment by Mr. Chereda, who was an



accomplished saxophone player. The group broke up into a spontaneous sing along. I thought that included the Hymn of the International Communist Party. I guess they still expressed their patriotism in terms of the only stirring hymn they were ever taught.

One other experience unique to that picnic: they brought a rifle along for target practice.

The idea was to aim at some beer can on a tree stump about 50 feet away. I never, ever handled a gun in my life.

Then came my turn: Ready, Aim, Fire. The recoil was so jarring I did not notice that I actually knocked the can off the stump. WOW!

Quit while you are ahead. That was the first and last time I ever fired, or touched, a gun.

The Lottery: A Firestorm Ignited

An issue which popped up out of the blue was an intense interest in bringing a lottery to Surgut. Lotteries were illegal in Soviet Russia. As the Soviet Union was disintegrating, the locals discovered lotteries as an economic gold mine to be tapped. On my next trip back to the US, I decided to educate myself on the subject by visiting the Dominican Republic. They had a thriving lottery going for years. It was *some* job creator: half of the people in the country were busy selling lottery tickets to the other half.

The lottery model of a third world should be appropriate for the neophyte population of Siberia.

The Dominican officials running the lottery were extremely helpful: they took me behind the scene. The logistics were impressive. It was a major source of revenues for the government. They shared

massive documentation describing the entire process from acquiring and printing tickets, to distribution, to structuring of the games, to statistics and results.

All of a sudden, I became a lottery expert. One more technicality I had to resolve: tickets and instructions would have to be printed with Cyrillic characters. An American-Russian friend gave me some ideas, including where and how to produce initial batches in the US.

When I returned to Surgut, I sketched out diagrammatically how we could introduce a lottery in Surgut, and its probable economic impact on the local economy. The reception was instantaneous and enthusiastic. The Holy Grail was finally here. A committee, with Telesimtes as a member, was formed immediately to execute the lottery program.

Within weeks, the lottery idea spread like wildfire across the entire Soviet Union. Our Moscow based staff organized trips for me to Azerbaijan, Uzbekistan, Leningrad, Kiev, and Moscow. I felt like a modern day John the Baptist spreading the word of the coming of the Messiah. It didn't take long for big money, corruption, and the fast growing mafia to take advantage of the chaos in the aftermath of the fall of Communism, to jump all over the lottery idea. Telesimtes continued to participate in the local Siberian market.

Iron Ore: The Billion Dollar Opportunity

In the midst of all the commotion about the lottery, our Kiev affiliate, Astra, insisted that we look into a major mining opportunity developing in Ukraine's Krivoy Rog region. This region had a 100 kilometers long underground mine producing iron ore, essential ingredient for the steel industry. Its output was absorbed internally to the Soviet Union to fuel its armament industry. As the Soviet Union began to collapse, Ukraine aimed for independence. The country launched a major drive to seek new markets for its products and solicit western investments to modernize its aging industrial infrastructure.

ICC was connected to a major trading house based in Switzerland. Experts there claimed that there was an enormous demand for iron ore in the European Community. They urged ICC to seek a large



scale deal: the Ukraine could become a major supplier of iron ore to Western Europe. ICC asked me to explore such deal in a hurry. I charged on confiding in the knowledge and expertise of the Swiss power house which was egging me on. When I arrived in Krivoy Rog, I was greeted by the officials running the mine. After the introductory meetings, they invited me to make a personal visit to the mine. At the conclusion of the visit, I was to join them for dinner at a miner's cafeteria.

That was the beginning of an odyssey. While Frinee, my wife, and on site secretary, began to draft the outline of a joint venture in cooperation with local staff, I left for the mine.

The guide took me to a control center, possibly to reassure me that my visit to the bowels of the earth will be supervised by competent people on the surface. My fellow crewmates then took me 3,000 feet underground. The VIP tour lasted over two hours.

As we emerged from the mine, I was taken to a showering facility. After donning a white tunic, I entered a large dining room. There were at least 20-30 men, also in white tunics, sitting at a U shaped table. A gentleman, probably the mine manager, congratulated me for visiting the mine and escorted me to my seat. As we sat down, obligatory rounds of vodka toasts were followed by more rounds of toasts. In between, we were served a four course meal. The scene had the makings of a feast from ancient Roman times.

Frinee, above ground, was growing alarmed. She was asking the local staff about my whereabouts.



Not receiving any straight answer, and fearing the worst, she demanded to be driven to the entrance of the mine. She was taken to the dining room while a toast was in progress. She had a furious look as she barged into a roomful of men in white tunics. The crowd was startled. I was mortified.

It took me a couple of minutes to calm Frinee down, convince her that everything was fine, and to wait for me at the hotel. Returning to my seat at the table, I made light of the event, and resumed

bantering for the rest of the evening.

For the next couple of days, we continued drafting a joint venture which culminated in a contract for the export of iron ore to Western Europe over a period of three years. The deal was worth over one billion

dollars. At all times, Frinee and I were in telephonic contact with Los Angeles, and our



correspondents at the Swiss trading house. I signed the contract on behalf of ICC. We held a celebratory signing ceremony. The local press trumpeted the news. A new day was beckoning for Krivoy Rog.

When we returned to Moscow, we received a call from the trading house: the European Community rejected the deal on the grounds

that the iron ore was of insufficient quality for use in their steel mills. The iron content was below the 60% threshold which they considered essential to meet their strict environmental standards. It was only 57% pure.

Near panic set in at our Moscow office. We could exercise some escape clauses in the contract to avoid legal liabilities, but the embarrassment was acute. Mining officials assured us that they could gradually improve the quality of their iron ore, but that such goal would take at least three years to accomplish, and require substantial new investment in equipment. The extra processing would also increase the production cost which was fixed at \$15/ton, FOB Krivoy Rog.

The only cool person in our office was Michael Montanari. Nothing fazed him. He began considering alternatives. The Swiss trading house advised us that they secured an alternative buyer: Red China.

The Chinese were nowhere near as sensitive to the environment as the Europeans.

The new buyer presented a major logistical challenge: how to get a weekly train load of iron ore to China.

The game plan proposed by the Ukrainians was to move the iron ore by train to the nearby port of Odessa and then move it by ship to China. The shipping cost was prohibitive. Initial estimates from maritime shipping companies added another \$15/ton, thus doubling the cost of delivery to the ultimate buyer.

Further contacts with maritime companies advised that the only way to reduce substantially the shipping cost was to use much larger ships. We quickly realized that accommodating larger ships in the port of Odessa would require extensive dredging and a beefing up of the port infrastructure. Maybe it was a wise investment for Ukraine, but it was clearly time for us to jettison this option.

Our friends at the Swiss trading house did not give up. They suggested moving the ore by overland, Transiberian railroad. Great, except for a new wrinkle: the tracks at the Russian-Chinese border were of a different gauge thus requiring transferring the material from Russian to Chinese wagons, one at the time. I learned that the Chinese had deliberately designed the gauge to be different in order to guard against a potential Russian invasion. Be that as it may, this option turned out to be more ill-conceived than the Odessa one.

We all ate crow: The iron ore deal was jettisoned in its entirety.

Crossing Paths with Presidential Wannabees

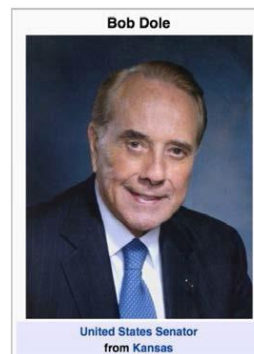
In my peregrinations, I came across a number of would-be US presidents. On flights to and from Russia, and during my stay at the Octoberskaya hotel, we met, clockwise from upper left of adjacent picture:



- Senator Ed Muskie. The senator was also a former governor from Maine and Secretary of State for President Carter. He ran for President in 1972. His campaign unraveled because he allegedly cried when a newspaper accused his wife of drunkenness. Mr. Muskie's mission in Moscow was on his own account. He volunteered his services to the government of Boris Yeltsin on how to build a stable, new democratic form of government. Those were chaotic times for Russia. Factions of Yeltsin party were beginning to break apart. He eventually turned his guns on his own people, puncturing his old headquarters at the White House (see further below.) No one would pay attention to Senator Muskie.

- Senator Gary Hart. He was a leading Democratic presidential candidate in 1984. Confronted with allegations of womanizing, he vigorously denied them. He challenged the press to prove it. They took up the challenge and discovered him joyriding his way to the Biminis with a woman not his wife. That was the end of his presidential ambitions. He started a new career as a lobbyist and consultant to US West, one of the spin offs from the old Bell System. I met him at the Octoberskaya hotel. He was cagey about the purpose of his visit. I surmised he was scoping out opportunities for his company in the new Russia.

- Senator Vance Hartke of Indiana. He made an unsuccessful presidential run in 1976. He became a lobbyist-par-excellence based in Falls Church, Virginia. His once a year birthday parties attracted the largest crowd I have ever seen in a private residence. I



attended two such events. Senator Hartke was very popular with Washington insiders. As an ex-senator, he continued to have full access to senate facilities. He took me once to a private tour of the Capitol. In the Senate cafeteria I had an opportunity to meet a number of senators I saw frequently on TV. Particularly memorable was my meeting with Senator Bob Dole, the majority leader at that time. Charming, witty, sarcastic, and a war hero, he was fun to meet. A perennial presidential candidate, he finally won the Republican presidential nomination in 1996, but lost to Democrat Bill Clinton in the general. I was honored to shake his working left hand. Senator Hartke himself was a great resource for ICC in Washington. Splendid guy, he passed away in 2003.

- Governor George Pataki. He made a feeble attempt at the presidency in 2008 and again in 2012. He was widely perceived as being a successful New York governor. He was particularly effective in soothing New Yorkers on the heels of the 9/11 disaster. He was all over the collapsed Trade Center towers consoling shell shocked New Yorkers and leading recovery efforts jointly, and in competition, with Mayor Rudy Giuliani, another wannabe. The Mayor made a more serious effort, but his candidacy went down in flames, nevertheless. Frinee and I visited the area while the towers were still smoldering. Sure enough, we came upon the Governor at the fire house which hosted most of the firemen who lost their lives in the conflagration. We had a chance to bond with him. He was effusive, charming, and genuine. He apparently lacked the fortitude to endure the rigors of a presidential campaign.

Soviet Empire on the Ropes

From the moment I set foot in Russia, I sensed that the empire was in disarray. The economy was in trouble. The national currency, the ruble, was essentially worthless. Even if citizens managed to accumulate some rubles, there were hardly any desirable consumer goods populating the shelves of state-owned stores. A popular joke making the rounds was: "We pretend to work, and they (the government) pretend to pay us." Except for their military prowess, which seemed real enough, the rest of Soviet life was mostly fake.

With the notable exception of the subways in Moscow and Leningrad (now St. Petersburg), the country infrastructure was also in shambles. The bank of public phones at the international airport was largely out of service. Local calls were very cheap: much less than an American penny per minute. The phones were apparently not worth fixing. Trains were of WWII vintage. Breakdowns were very common. The interior decor of Aeroflot, the national airline, was visibly deteriorating. A passenger had to be concerned about quality of safety maintenance, if any.

People appeared to be listless, cynical of the central government, but otherwise resigned to their threadbare circumstances.

Gorbachev started a revolution with his brave introduction of "Perestroika" and "Glasnost". The economy actually deteriorated further except that people were now freer to express their unhappiness with the whole system. If I were to make an analogy to contemporary politics, Gorbachev's well intentioned moves were the equivalent of putting "lipstick on a pig". The entire Soviet system was rotten at the core.

Ironically, people seemed to project their frustration on Gorbachev. His sophisticated wife Raisha took the brunt of the hatred. I attributed these ill feelings toward the Gorbachev's to a couple of issues:



Raisha had Western tastes. She would visit and shop at the best outlets in Western Europe. Russian women struggling with all manner of shortages of decent consumer goods absolutely detested Raisha. The store depicted here was one of many similar stores I visited in Russia. The meager supply of goods they sold was gone by early afternoon. All the rubles in Russia could not buy much in those stores.

Lines were forming in front of stores early in the morning: bread in store x, milk in store y, vegetable in store z. A line had to be formed outside each store. What really surprised me was how stoic were the Russians. Seventy plus years of Communism browbeat the population into submission.

There were a few dollar denominated stores in Moscow that carried western goods. They were super expensive and carried very limited selections of homemade or goods imported from the West. There was one McDonald and one Pizza Hut store in Moscow. The first McDonald restaurant in Moscow's



Moscow's first McDonald. From TheMoscowtimes.com

Pushkin Square became an overnight sensation when it opened in January 1990. That store was the largest one in the McDonald chain. It served **30,000** people on the first day. The above pictures from themoscowtimes.com dramatically illustrate the crowds waiting to bite a hamburger costing them half a day wage.

When I was in Moscow, I headed for the less crowded Pizza Hut. I did fork over \$70 for two small pizzas and some side servings.

Michael Gorbachev, besides fighting economic headwinds which added to the misery of people, introduced a campaign to limit the production and consumption of vodka. He realized that vodka (and smoking) were the two main health issues confronting his people. Noble goal, but foolish idea. In a country as dreadful and depressing as Russia, vodka was about the only escape left to a demoralized population. It was obvious to me, that neither he nor Raisha would be acceptable as dog catchers in a more democratic Russia.

Gorbachev was earning all kind of plaudits in the West, including the coveted Nobel Peace Prize. At home, he was in the dog house.

In my visit to the provinces where I had the opportunity to meet with senior level provincial officials, the contempt for the central Soviet government was palpable. They were all rushing to declare their independence and expressed their super eagerness to deal directly with Western companies, even though the legal framework was not yet in place, and all financial transactions had to go through the Soviet Central Bank.

One of the most telling examples of rising nationalism was the evening we visited the famous Moscow Circus, several weeks before the Union really collapsed. The only legal flag that could be displayed was the Red Soviet flag with a sickle and hammer in the upper left corner.



As we were looking down on the circus floor, all of a sudden, a rider on a horse appeared unfurling a



giant Russian flag. The crowd went wild. It broke into an uproar. Everyone, including Vladislav's

family that accompanied me stood up clapping for the four, five tours around the loop. It was like the horse from the apocalypse. We were swept up by the euphoria of the moment. Russia was coming out of the shadow of Communism.

The independence drive across Sovietland was led by Boris Yeltsin, the president of the Russian Republic. Mr. Yeltsin was fearful for his life as hard line Communists were getting desperate about salvaging the fast disintegrating Soviet empire. The source of Yeltsin power was located at the White House, seat of the Russian Parliament.



Russia itself was a complex structure of regions, autonomous republics, and ethnic groups. There were about 80 entities calling themselves members of the Russian Federation. The communication network connecting these entities was vital to Yeltsin's security. He could count on the support of provincial governments should the Soviets attempt to arrest him. He also knew that in any serious coup, the very first action of the KGB would be to isolate him by cutting off his lines of communications to the provincial capitals and the outside world. He

began planning the creation of a network impervious to KGB control.

Early August 1991, Michael Montanari and I were summoned to an emergency meeting at the White House. It was held adjacent to Yeltsin's office with top officials of the Russian Federation in attendance. The inquiry of the officials was bewildering: Could ICC set up an emergency private network connecting the White House to 40 critical regional headquarters? It had to function in a ring down mode: lifting a special phone at the White House would ring simultaneously all phones in the system, in essence establishing an instantaneous teleconference.

What made the inquiry bewildering was that such a critically secure network would be outsourced to a small foreign company. My theory was that we had already earned trust of officialdom across the countryside, we could operate below the radar, and we had access and resources to the right technology worldwide. Most likely, the most important reason, they could not trust any domestic supplier without alerting the KGB, the one arm of the Soviet establishment still firmly pro-Soviet.

The challenge was not trivial. The most obvious solution was a network of Very Small Aperture Terminals (VSAT's), small antennas at each remote location, communicating via synchronous satellite to a central location, presumably located on the grounds of the White House. Because Russia is a giant country, spanning *eleven* time zones, no single satellite has the visibility to the whole country which would require more than a single VSAT control center. Also, because Russia is considerably above the Equator, signal strength at the VSAT locations is relatively weak, necessitating larger antennas to acquire usable signals levels.

Others issues, in addition to operating in secrecy and great urgency, acquiring the export and import licenses made the project complex. In an attempt to respond, I solicited the preliminary advice at Scientific Atlanta, a company with vast experience in VSAT technology and systems.

Events were moving very fast. Gorbachov was implementing a new, more decentralized system of governance which gave the non-Russian Republics a fair amount of independence from the suffocating embrace of the Soviet bureaucracy in Moscow. New protocols were to be signed August 20, 1991.

Gorbachov decided to go on vacation in anticipation of the signing. A cabal of hard line Communists, alarmed that he was leading their beloved Soviet Union into dissolution, flew to Gorbachev's vacation 'dacha' with an ultimatum: *resign*. He refused. Whereupon they placed him under house arrest, cut off his communications to the outside world, and flew back to Moscow to declare a state of emergency.

That was August 19, 1991. Tanks started rolling toward the White House. A couple of troublesome Russians deputies were already arrested. All independent news outlets were shut down. Yeltsin, who just returned from a trip, was still free. Fatal mistake. He rushed to the White House to intercept the incoming tanks. He climbed on top of one of them: urged the troops to not attack their own people; declared the coup d'état illegal, and called for a general strike. The state-controlled media broadcasted his act of defiance.

The Soviet Union began to unravel. The cabal met at several places, including the Octoberskaya hotel where I was supposed to arrive in two days. Amidst reports of heavy drinking, they reshuffled government agencies, appointed a new military chief for Moscow, and sent more tanks rolling toward the White House.

By now, Muscovites were beginning to stream to the White House; they set up makeshift barricades to block the incoming tanks; they blocked the entrance to a key tunnel where two demonstrators were shot dead.

The confrontation was getting ugly.

The new commandant of the Moscow garrison reported back to the cabal that serious bloodshed was inevitable. Tanks were ordered to pull back. The date was August 20.

The cabal dissolved on August 21, 1991. Its members were arrested for treason. The Soviet Union was essentially over as a communist country on that day. In the next few weeks, various Republics of the Soviet Union rushed to declare their own formal independence.



[The Soviet cabal...from opendemocracy.net](#)

Boris Yeltsin declared the communist party illegal. All its assets, including all buildings, offices, hotels, were seized on behalf of the Russian Federation.

My trip back to Moscow was delayed for a few days to allow the situation to clear up.

By the time I finally checked back in at the Octoberskaya hotel on August 29, it was evident that there was a new management in place. This formerly communist owned hotel was a real luxurious place for the Soviet elite. The Politburo, the top policy making body of the Soviet Union, lived and met there frequently. The entrance was majestic. Marble floors were covered with plush red carpet which led down a long hallway to an imposing bust of Lenin's head on a pedestal. [Picture below is a bronze version of the one I saw at the hotel, which was probably carved from marble.] On both sides there were spiral staircases leading to a mezzanine. The first thing I noticed was the pedestal at the far end was missing Lenin's head.

What happened to it?



My Russian speaking secretary inquired about the whereabouts of Lenin's head. "It is in a closet," the manager on duty answered matter-of-factly.

I thought it would be cool to take Lenin's head back to the states as a souvenir. Perhaps I could donate it to my alma mater as an historical artifact around which much communist history was written.

The secretary asked the manager again whether one could take that head. "I don't care," he replied. "Just ask the artist."

The secretary proceeded to call the artist. She must have been insulted. She turned, flustered, toward me:

"The artist is raving mad that the head was removed from the pedestal. That is part of our history. He followed that with some crude language."

I apologized to the secretary for putting her through an awkward position. That was the end of the foolish idea: They could keep their head. I was just happy enough that it that it was off the pedestal.

The grounds of the Octoberskaya Hotel were littered with statues of fallen Soviet heroes. Stalin, Lenin, the infamous Dezerensky, founder of the KGB, who sat on the pedestal in front of the Lubyanka prison. It was probably the first statue to be knocked off the pedestal by rampaging crowds celebrating the fall of Communism. I never found out why all those statues were dumped on the grounds of the Octoberskaya. Crowds were milling about the various broken statues. The atmosphere was electric and exhilarating. I could not believe that one of the most brutal empires ever devised by men could come to such an ignominious end. As an early victim of this system, I was here bearing witness to its end. I couldn't believe my eyes, or my ears.

Stalin, the most infamous of the Soviet dictators, whose very name was synonymous with terror in my youth, was now laying shattered on the ground, with **MY** boot on the remnants of **HIS** statue, on the very grounds which served as his home in the Soviet Union. To this day, I have trouble

accepting the reality and significance of what I witnessed on August 30, 1991. I need to revisit some of the pictures of that day to convince myself that the whole episode was not a dream.



A couple of days later, with barricades still up around the White House, I came upon large crowds milling about. The collage below depicts various scenes of people and barricades around the White House. A large floral arrangement was placed over the viaduct where the only two victims of the failed Soviet inspired coup perished.

The crowds were being harangued by various speakers. To my surprise, several of the speakers were evangelicals. I got the impression that they were hijacking the counter revolution.



The area around the Kremlin was also teeming with demonstrators. The plaza is absolutely immense.

Multiple demonstrations were going on simultaneously. I was milling about savoring the historical moment. One group pulled me in. I couldn't resist the call of a "babushka". I joined for a photo opportunity. I had no idea about their cause. They could have been

evangelical, anarchists, nationalists, disgruntled communists. Russian readers may be able to decipher their cause. I was certainly not endorsing it. I was just caught up in the exhilaration of the moment. (See collage in next page.)



After the snafu of his missing head, I decided to be more respectful of their historical sensibilities and joined the troops standing guard on the grounds of the Lenin Mausoleum.

There was a faction within the Yeltsin party pushing to give the Lenin mummy in the Kremlin Mausoleum a decent burial. Russian troops were dispatched to protect the mausoleum. Frinee is shown below accompanying the troops on the way to the mausoleum.



Earlier visits to the mausoleum required a minimum one hour standing in line. Frinee is shown below making the best of our wait. It was however very popular for young couples to exchange marriage vows before the ghoulish looking mummified body of Lenin.



. These couples were given immediate access to the mausoleum. I guess it was a rite of passage for promising, future communist leaders.

Entering the mausoleum is like entering a catacomb. A suffused, greenish light illuminated a pale face. It looked like the hands were sewn onto the arms. One arm appeared longer than the other. Maybe what I saw was an illusion due to what appeared to be an ill-fitting dark suit.

My mind was morbidly absorbed by what was stuffed underneath that taut skin. For the first time I felt sorry for Lenin. Maybe the Yeltsin rebels were the most humane: Lenin should be allowed to rest in peace after so many years of being exposed as a freak in a circus.

Lenin, Founder of modern day Russia.



From Leningrad to St. Petersburg - A City Reinventing Itself

The next week, visiting Leningrad, we attended a meeting at the Admiralty of the North Sea Fleet of the Soviet Union. The building was in an island contained within a city lake. The artwork was unbelievable. It was worthy of the Vatican Sistine Chapel.

Michael Montanari was leading a small American delegation of ICC and CNN executives to discuss plans for the forthcoming Good Will Games to be held in Leningrad in 1994. The military and the City Government led by Anatoly Sobchack were looking forward with anticipation to such event as a way of showcasing a modern new city undergoing rapid political and economic development, including a declaration of the city as "Free Trade Zone", and a name conversion to St. Petersburg. A driving subtext was the development of a telecommunication infrastructure to support the proposed sport venues, and the large contingent of press expected to attend the events.

At a formal luncheon populated by telecom and local political figures, the vodka laden toasts were freely flowing to peace, to friendship, to successful modernization program, to the brand-new missile launching cruiser the Admiralty just acquired.

What?

Sitting next to some high ranking naval officer, I politely inquired why in the world they need a new missile cruiser for. Half stoned, he advised me that the cruiser was programmed long ago to modernize the fleet that the new Soviet Union was going to remain a naval power, and so on.

I thought they were delusional. The Soviet Union was fast disintegrating. It did officially expire on December 26, 1991. The emerging independent Russia Federation was an economic basket case. The Ukraine, also emerging as an independent state, was planning to deny the Russians access to their Crimean naval base. I also asked the officer if the sailors on their ships had access to vodka.

"Absolutely," he replied. Were it not for the vodka I already consumed myself, I would have been a lot more worried.

In the evening, the Admiralty organized a formal reception for the visiting delegation. We were freely

mixing it up with the military brass. In small talk, I complimented the admiral about the fancy hat he was wearing. I was just being polite. All of a sudden, the admiral took his hat off and offered it to me as a token of his appreciation.

I was horrified.

"But Mr Admiral, that hat is your life, your career. I cannot take it!"

He insisted.

I turned for help to my Russian guide. She assured me that if I refused to take that gift, the Admiral would be insulted. Making the best of an awkward moment, I accepted the hat and brought it to the US.



I now have a full album of pictures of guests which had fun trying the Russian Admiral's hat.

The next day we attended a large meeting of local officials chaired by Anatoly Sobchack, the city popular mayor.

I did not know it at that time, but this gentleman was the best friend and mentor of Vladimir Putin and Dmitry Medvedev, both up and comers in the new Russia. The day following the big meeting, we were feted by the city of St Petersburg. My group, made up of prospective Western investors was taken on a three-day cruise hugging waterways close to the Finnish border. The team shown here was part of the St Petersburg economic development team who accompanied us up the river and extolled the economic



potential of the city in between countless toasts. I learned later that Vladimit Putin was at that time the Vice Mayor of St. Petersburg. His main duty: promote Western investment for the city. He must have approved and organized this junket. How ironic. He is now (2023) busy waging a brutal war on our beloved Ukraine and driving Westerners, and their investment out of Russia.)

One of the development issues that was brought up during various seminars on the boat was the modernization of the former political party HQ in Smolny which was to revert back as a city hall for the new St. Petersburg. Smolny had a distinguished history: it was used as Lenin's first office when he launched the 1917 Soviet revolution.



Smolny, St. Petersburg



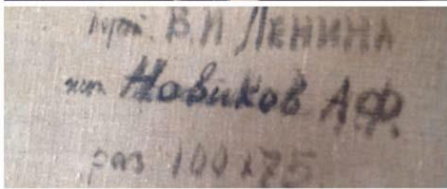
Lenin's OriginalOffice

The day following the cruise, I was taken to a tour of the facility. I saw Lenin's office. It was modestly furnished. My attention was attracted by an old telephone on the desk. That would have

made for a great souvenir. The escort politely reminded me that that room was to remain intact: it would be retained as an historical site.



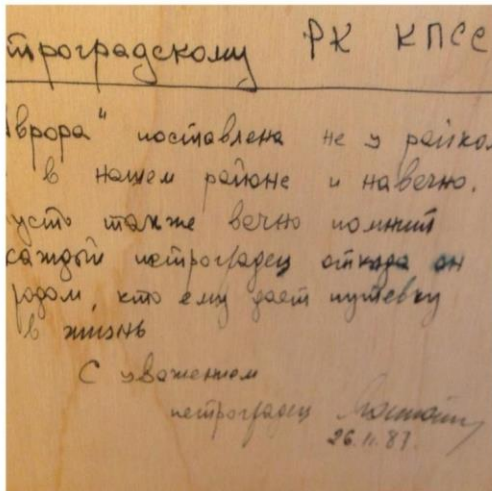
My escort did take down an oil painting of Lenin from an adjacent room and offered it as a souvenir from the now defunct communist party HQ.

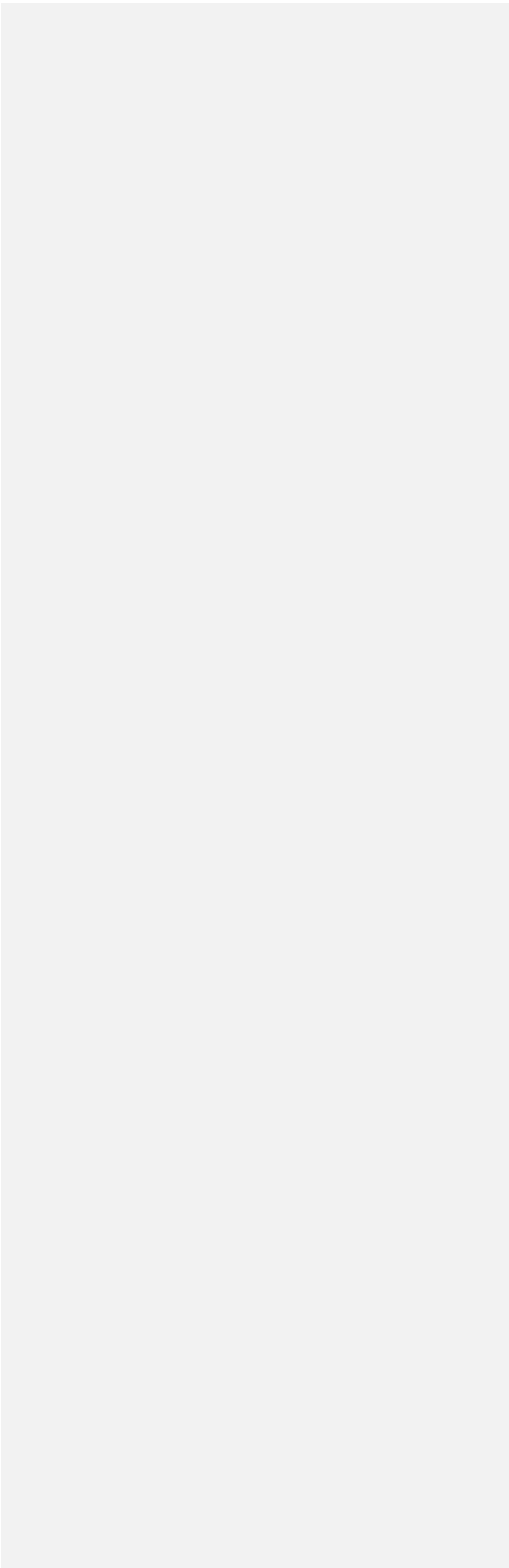


I brought that painting back to the states. It is on a canvas that is somewhat fragile. [It is being preserved in a plastic container until this author finds some Russian who may be interested in recovering a bit of his history.]

Another bit of historical memorabilia that I recovered from the same office is a sturdier wooden engraving of the Aurora, a warship which

was stationed in the harbor. It fired the first shot of the October 1917 Bolshevik revolution.





Rom's Hall of Fame

Most of my life has been deeply impacted by the "Cold War" rivalry that pitted the USA against the Soviet Union, also known as "USSR". The two were locked into a mortal embrace from WWII to the early nineties. Armed to the teeth, they confronted each other for world supremacy by waging countless wars by proxies across the globe. These rivalries were rooted in ideological differences. At its most simplistic level, it was a case of capitalism and free enterprise versus power of the worker, "the proletariat", and state ownership and control of the economy.

As Americans, we were convinced that we were fighting on the side of the angels. The Communists were equally self-confident in the righteousness of their cause. Witness Khrushchev truculent banging his shoe at the United Nations, with the threat: "We will bury the West." At its rawest level, the rivalry devolved into struggles for pure power. What kept us from blowing each other up was the theory of "Mutual Assured Destruction (MAD)": we each had sufficient nuclear tipped missiles pointed at each other to destroy ourselves many times over, no matter who dealt the first blow. *[Thanks MAD for making it possible for civilization to march on.]*

I never thought that the Soviet side would collapse in my generation, and before my very own eyes to boot. I never thought that an evil empire would fade peacefully into the sunset without a major spasm of violence. Yet this is what happened.

At the risk of being presumptuous, I like to define a Modest Hall of Fame listing the leaders to whom this author, and the world at large, owes an enormous debt of gratitude for having liberated us from the nightmare of nuclear annihilation.

Pope John Paul II. His remarkable life story under the boots of both Nazism and Communism prepared him for instilling into the subjugated Polish people pride in themselves and faith in a future of spiritual and political rebirth that could not be suppressed by Soviet tanks. Stalin, contemptuous of the power of the spirit, is famously quoted as having inquired about how many divisions the pope had. Lech Walensa, the fearless union leader, stirred the passions of his people to provide a serious challenge to their Soviet bondage, causing the first real crack into the monolithic Soviet Empire.

President Ronald Reagan. He knew that Communism could not survive and compete in a stepped up armament race. He called and truly believed that Communism constituted an "evil empire",

doomed to extinction. He never wavered in this rock-solid belief. It constituted his North Star. He dared Gorbachev with his cry to "Tear down this wall!" in the heart of Berlin.

Prime Minister Thatcher, the Iron Lady from Britain. She was instrumental in recognizing Gorbachev as a new kind of leader that the West could do business with. She encouraged President Reagan to open up to him without compromising his principles: "Don't go wobbly on me!" she chided him.

Michael Gorbachev. I likened him to a pilot who brought the Cold War to a safe landing. Smart, sophisticated, humane, and brave, he defanged the hard liners without provoking massive, convulsing internal and external violence. He made Boris Yeltsin act of defiance possible. The two statesmen helped each other, at critical junctures, but it was Gorbachev who deserves the ultimate credit for the safe demise of the Soviet Union.

In my view, Mr. Gorbachev deserves enormous credit for preventing a WWII type catastrophe. His piloting of the Soviet Union to a safe end is comparable to the feat of Capt. Chesley Sullenberger. He landed a disabled aircraft on the Hudson River allowing all 160 passengers on board to escape safely (US AIR Flight 1549, January 15, 2009). It is just a shame that Gorbachev is not as honored in his country, as Capt. Sullenberger is celebrated in ours. Perhaps the long view of history will vindicate Gorbachev's reputation. His competitors in the history of Russia, including the current leader, did not distinguish themselves for enlightened leadership.

In Rome Do as the Romans Do, But be Careful what you Wish for

One of the fascinating aspects of visiting foreign countries is to taste local food, learn local culture and folklore, experience their religion, understand or empathize with their politics. One of the most intriguing ways of experiencing many facets of foreign culture is to be invited to a local wedding.

I had such fortune of attending a Moslem wedding in the ex-Soviet Republic of Uzbekistan. It was an experience that only Hollywood can convey.



The warmth, exhilaration, joy, openness, dancing, singing, opulence, and exchanging of gifts was almost comparable to weddings depicted in the "Godfather" movie. As the only westerner in the crowd, I was treated like the star of the show. The bride gave me almost as much attention as she gave her new husband.

I was impressed with the level of emancipation of the Moslem women of Uzbekistan. They wore stylish Western clothing. They easily mingled with men. Several spoke decent English. They were eager to collar me to practice their

English.

Say what you will about the "evil Soviet Empire", the Soviets must have done something right.

Another adventure in local culture turned out not to be such a pleasant experience. I was meeting with local officials in a town of Western Siberia. I asked, innocently enough, what people do after five pm in God-forsaken Siberia.

Not to worry, they advised. I was to join them at a *typical* evening out at the conclusion of the meeting.

At five thirty PM, we took off in two dark vehicles. Eight men in all. It was early fall. Not that much snow on the ground. We drove for about 50 minutes through dark, muddy roads. We eventually came upon a little gate. One of the men jumped out to open it. We drove a couple of hundred feet to a darkened cabin. I noticed a little bridge connecting a shed to a black river. I was getting nervous.

Upon entering the cabin, a couple of the men lit up two lanterns. One went out to fetch some wood. Another one started a fire under a gigantic kettle full of water.

A couple of men opened two bags full of groceries. They arranged them neatly on two giant platters. Russian mini sandwiches were spread out on the periphery. There was plenty of caviar in the center.

I do not recall exactly, but I believe someone pulled out a couple of bottles of vodka; could have been more.

We sat around in a circle, eating, drinking, laughing and warmed by the vodka and the giant fire that was beginning to cause the water to boil. Not having my official interpreter, I mostly nodded and weaved to go along and be social, but I barely understood someone's broken English. I even managed to sing along.

Talking about a ritual! One at a time, the men disrobed themselves (totally!), climbed over some wooden grate on top of the kettle, lay down, and began to perspire. Profusely.



Someone else, also totally naked, began to hit the man being "sauned" with a frond, a collection of leafy twigs. The idea: to clean the pores now open by the perspiration.

Strangest yet: each man, once "sauned" ran outside, came back all wet, dried himself, sat down covered with just the towel, and resumed drinking and eating.

My turn was coming. This is allegedly a common ritual among Northern Europeans. But this here author grew up in a prudish culture. I was very uncomfortable. Now I had no choice but to play along.

I asked for it.

Thirty Seconds in the Ob River.

The vodka made it easier to let go of my natural inhibitions. I disrobed and climbed over the wooden grate. The scent of burning wood, the suffocating steam, followed by the flagellation with fronds liberated the evil spirits... or the dirt hidden behind my perspiring pores. The whole experience brought up images of Dante's Inferno. What did I get into? "*Perdete ogni speranza, o voi Che entrate.*" Give up every hope once you entered hell.

Once I climbed down, I had to run out naked into the frigid weather, down the wooden plank, and into a dark, murky, freezing river. It was one of the world's greatest rivers, Siberia's mighty Ob. What a thermal shock!

I turned around as fast as I could, up a rickety ladder, into what now felt like a balmy evening in the boondocks.

Upon returning to the cabin, I wrapped myself with the towel. We resumed drinking, eating and chatting for about another hour. I was tired and dreamed of going to bed. I was driven back to town, but not before I had to endure one more round of toasts at one of my guests' home.

The obsession of toasting for any excuse starts at an early age in Russia.



A Qatar Excursion

Qatar as a country is owned and operated by the extended Al-Thani family. It is awash in petrodollars. I visited a director of the state owned Qatar telephone company (Qtel) as well as the petroleum company (QGPC).



Dr. Khalid Al-Thani was my host. He solicited ICC help in preparation for proposals to digitalize their telephony network, and a special data network for the petroleum industry. He also inquired about securing a transponder channel on a western satellite which would be used to broadcast news to the Arab world a-la-American CNN.

After some false starts, the Qataris did launch the very influential Al-Jazeera network.

On my second visit to Qatar (December 1992), I was invited to the home of the chief operating officer of Qtel. He was of Indian nationality. I learned that most executives in Qatar were foreign nationals. They were not integrated into local societies. They were well paid, but forever treated as foreigners. They could be dismissed and expelled from the country at the whim of any member of the royal family.

Returning from Russia, I took a side trip from London to Qatar. Since my wife Frinee was accompanying me, I decided to leave her in a London hotel. She had no clue about how to behave or dress in a conservative Muslim country. Doing some shopping in London was far safer.

The above collage from top to bottom depicts:

The Doha Sheraton, a fabled hotel where I stayed while in the country. The scenes inside and outside the hotel were surreal. Exotic. The landscaping was vaguely reminiscent of swanky Caribbean resorts.

My meeting with Dr. Al-Thani. I later learned that he had twenty five children with "multiple wives." I also learned that he was a very pious person and was at one time the Minister of Religion for Qatar.

Women of Arabia. In the offices of the phone company women wore western garbs with scarves over their head. Judging from their flawless English, I surmised that they were all foreigners. On the street, women were covered head to toe. Even the eyes were hidden. The picture shown above is from Saudi Arabia (courtesy of the Huffington Post.) They looked exactly like that in Qatar.

End of the Soviet Adventure

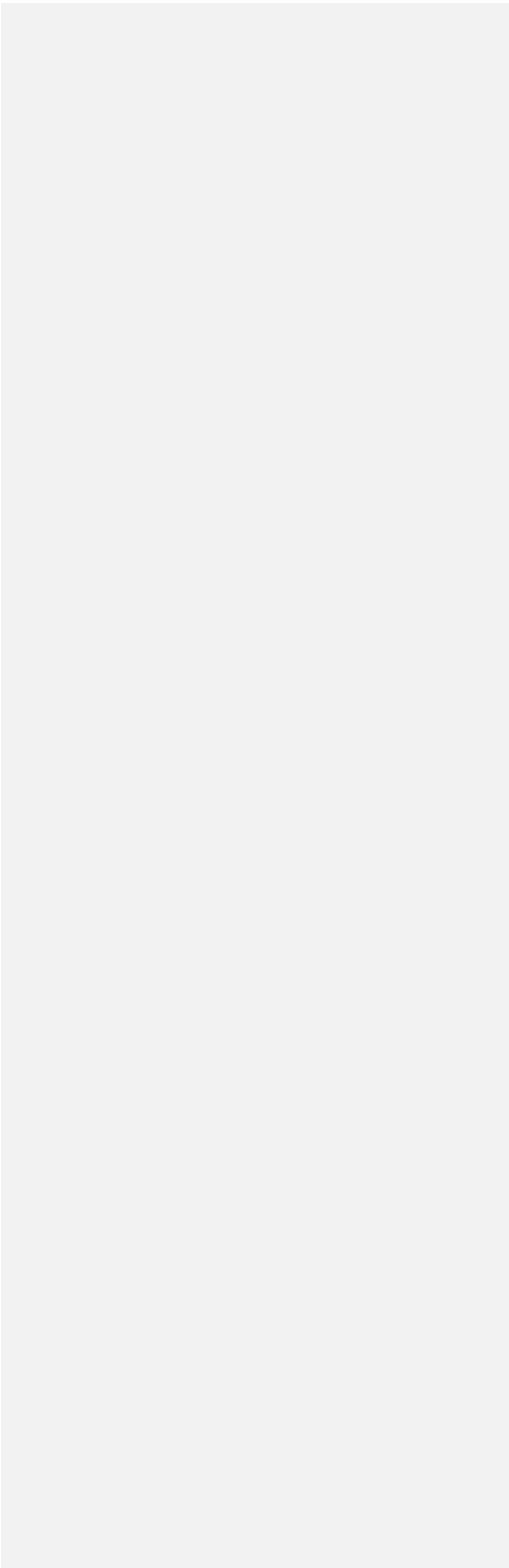
By 1993, the landscape of the former Soviet empire had changed dramatically. The commissars who ran the land quickly turned into capitalist Mafiosi. They seized command and ownership of state assets. This process gave rise to instantly fabulously rich oligarchs. In the meantime, the incipient democracy of Boris Yeltsin was tottering on the verge of collapse. Crime was rampant. The value of the ruble was hitting new lows. Yeltsin became famous for his legendary bouts of drinking and bizarre behavior in public events.

The enormous business opportunities opening up in Russia attracted hordes of foreign investors. Most came to grief as they confronted the vagaries of a lawless country, with no legal framework to protect their investment. All sort of agencies began enforcing taxation which amounted to extortion rackets.

Foreigners were at a serious disadvantage. The connected insiders were the only ones prospering and surviving in the fledgling new democracy.

It became physically hazardous for foreigners to conduct business. Much of the oppressed population, yearning for the return of the strong man, eventually got its Putin.

ICC downsized its operations in Russia to focus primarily the lottery business. It continued to support other projects around the globe.



Free for All in International Telephony

Arbitrage in International Communications

Traveling around the world, I noticed that calling from a foreign country was always more expensive than calling the same country from the USA. For instance, a call from Moscow to the US was costing about \$1.50 per minute; from the US to Moscow it was about \$.50 per minute. The differential was due to archaic rules governing international settlements as national telephone operators compensated each other for carrying the call to its destination. This trend was true universally: calls outbound from the US were always cheaper than calls inbound to the US.

A business opportunity became evident: offer international clients a way to call the US by causing a reversal in the billing direction. Known as “call back”, client would call a predesignated number in the US and hang up before triggering an in-country toll charge. A computer monitoring the predesignated number would immediately return the call, offer the client a new dial tone, collect whatever digits identified his true destination, and complete the call to the destination party.

The net effect was to deny the telephone provider, usually a state monopoly serving the client, the opportunity to charge very lucrative outbound rates. Instead, the telephone company would be compensated with the far more modest termination rate that was allowed by established inter-carrier settlement rates.

The imbalance between inbound and outbound prices had a negative effect on the balance of trade for the US. The settlement process caused more money to flow to foreign carriers than vice versa. The Federal Communications Commission (FCC) pressured foreign carriers to lower their outbound rates to reduce our trade deficit.

The introduction of callback leveled the playing field. Foreign carriers wanted the FCC to declare callback illegal and a violation of established settlement agreements among nations.

They were knocking on the wrong door. In a ruling brought about by an AT&T complaint, acting on behalf of its foreign correspondents, the FCC ruled that “*Call-back advances the public interest, convenience and necessity by promoting competition in international markets and driving*

down international phone rates. We believe it is in the best interest of consumers -- and eventually of economic growth -- around the world." (FCC-95-224/, June 15, 1995). This turned out to be a prescient pronouncement. [Score one for much maligned bureaucracy and regulation.]

When I discovered this business opportunity, I rounded up some investors, and founded a company called "Miami International Gateway" (MIG) to develop the business. An office was located on the outskirts of the Miami International Airport.

The year was 1992. There was no known technology available to capture this callback opportunity. We had to develop a system from the ground up. The main hardware components



were a switching system normally used in large businesses called PBX, microcomputers, emergency generator to insure service continuity in a frequently interrupted power system.

The main challenge was to develop the software to power the microcomputers. It took our programming team about six months

to develop a workable callback system. We initiated service in early 1993.

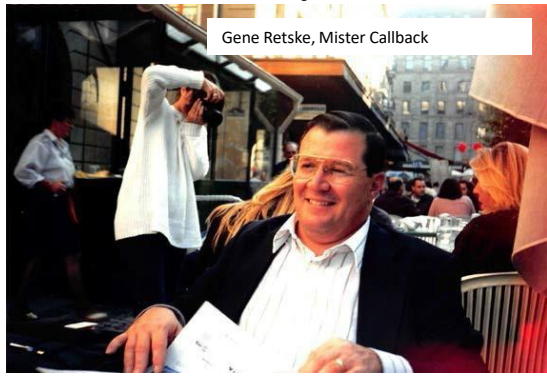
We were financially on the "bleeding edge" of technology. The real time billing system was particularly challenging. It was wobbly. Scalability and reliability were essential as traffic built up rapidly beyond our expectations. We established quickly a network of correspondents worldwide.

My staff spent many nights manually verifying individual call records to insure we were not double billing, erroneously billing, or missing out on calls completely. As the founder of the company, I was deeply involved on technological development part of the business.

We were too thinly capitalized to invest in more robust hardware and software necessary to capture a substantial market share in a market that grew from zero to a billion dollars in the space of three years. Eventually we acquired Canadian investors but had to give up control of a promising company.

As the foreign carriers became more conscious of the competitive threat posed by call-back, they began to take counter measures. For instance, they would start monitoring destinations with high incidence of uncompleted calls. Those destinations could be blocked, or worse, force quick answer supervision which would cause billing to start on unanswered calls. It triggered a technological arms race.

We started using alternative data routes (X-25) to signal our computers to initiate a call in the reverse direction. The next step was to use the nascent Internet. It devolved into a cat and mouse game.



Throughout the period, I befriended noted call-back author Gene Retske who wrote the "bible" on the subject: "*The International Callback Book: An Insider's View*", CMP Books, 1994. The picture of Gene on the left was taken during the 1996 Geneva Convention of the International Telecommunication Union (ITU). Gene was a prolific writer, as well as a great friend and informal partner in our company. More than any other, Gene was instrumental in giving standing and legitimacy to the new business of call-back, and in enhancing competition in global telecommunication.

One day I received a visit in my Miami office from an official of Deutsche Telekom, the giant state owned German phone monopoly. He was inquiring about callback technology. At that time, Germany was one of the most profitable target countries for call-back. It offered a great arbitrage opportunity because of the disparity between inbound and outbound rates. He asked ME to help them cope with revenue erosion due to call-back. He invited me to visit their technical department in Bonn. I did.

This was a case of offering the Germans both a cure and the disease. My advice was to monitor traffic at their international telecom gateways. There they could easily filter call back traffic: great solution for first generation callback.

The solution would be more complicated for Internet originated traffic. They were not too concerned yet about the Internet originated threat. I believe the Germans abandoned the idea of

blocking call back after the American FCC came out strongly in support of the new competitive paradigm.

The disparity in inbound versus outbound rates were so great that it was economically attractive for individual, businesses and even government institutions to use callback to lower their international telephony costs. We had clients in Hong Kong who called mainland China by way of Miami. The Russian Embassy in Saudi Arabia used our system to make unsecured calls back to Moscow. Libyan consulate in Brazil called homeland via Miami.

The monopoly power of foreign carriers was under serious assault by all manners of bypass technologies entering the marketplace. The explosive growth of the global Internet dealt it the *coup de grace*.

The Canadian investors, new to the field of telecommunications, came with ambitions to grow the company to convert it rapidly from private to public. As the founder, it did not take long to stumble into conflicts as to goals, tactics, and strategy. I was particularly concerned about growing the company recklessly prior to building the robust systems capable of coping effectively with an onslaught of traffic and customers scattered all over the globe. I knew the pitfalls. I decided to leave the Canadians to their own devices. Terms of their investment included a provision for non-competing. This provision turned out to be very onerous.

University of Miami Hiatus

I used the enforced hiatus to dive into writing, speaking, and a five year long stint as a visiting professor at the University of Miami. My classes attracted MBA candidates with a concentration



in Management Information Systems (MIS). Classrooms and surrounding facilities were plush, equipped with the latest in audio visual aids. Retractable projection screens, automated window shades, auditorium shaped rooms, surround sound systems, executive seating comfort made for a very pleasant environment.

My subject area was international telecommunications: technology, regulations, business strategies, international settlements policy, trends affecting the evolutions of global networks and practices. I relied heavily on trade journals, conferences, and my own life experience to compose each lecture using Microsoft Power Point.



The general inspiration for the course came from another friend and prolific writer, Rob Frieden, Professor of Telecommunications and Law at Penn State University. His seminal book, titled *"International Telecommunications Handbook"*, Artech House Telecommunications Library, December 1995, provided an overview of the legal, regulatory, technological, economic and business issues that affected the world of telephony.

It was written at a time of major convulsions: telephone networks were being rapidly digitized, Internet protocol was becoming the coin of the realm; cellular technology was exploding; the capacity of fiber optic carriers was growing by leaps and bounds; privately owned satellites were being launched of which PanAmSat was the prime example. The congruence of all these trends created opportunities for new entrants to disrupt the established global order of telephony and heavy-handed governmental regulations which defined the rules of the road.

Professor Frieden served as consultant to the National Telecommunications and Information Administration, Federal Communications Commission, the International Telecommunication Union, and countless telecom operators around the globe. He was the prime authority in helping

established operators repositioning themselves in the new world order, as well as helping newer competitors navigate the thicket of regulations designed to protect the old boys' network.

The students were mostly from China, the Middle East, and Europe. The high motivation and preparation of these students made for a pleasant teaching task. Particularly remarkable were the Chinese. They scrupulously analyzed every word I uttered. They would collar me in the hallway before and after classes requesting clarification of every concept I introduced in class and challenge whatever comment I made on their test paper. They inevitably scored at the top of the class.

More gratifying yet were letters of appreciation from former students who wound up in positions of responsibility with telecom operators worldwide. I captured their attention with vivid examples of companies and strategies which excelled or failed in the global telecom market place. The soft underbelly of the business was the reality of endemic corruption common to international ventures with developing countries. It was an area fraught with pitfalls for Americans who had to cope with strict anti-corruption laws from their own country.

After 9/11, the foreign student population declined dramatically. Middle Eastern students became noticeably scarce. The atmosphere became tense. I myself was more circumspect about divulging information that although in the public domain could highlight major US communication nodes essential to global connectivity.

Concurrently with the aftershocks of 9/11, the global telecom business was imploding under severe stress of the infamous "dot com bubble". It burst taking out some of the brightest stars in the business like Enron, Worldcom, and countless other high tech companies. The glamour and allure of a career in the high tech business evaporated. So did enrollments in the MIS division of the graduate school of business at the University of Miami. By 2002, my tenure was over.

GlobalXchange Communications: Solutions for the Age of Convergence

Teaching and public speaking at international trade conferences served as motivators to stay current with rapidly evolving technology, business, and regulatory environments in the worlds of IT and telecom. As soon as my non-competition agreement expired, I was ready to start



Rom Mattesich
Chairman & C.E.O.

A Telia Partner
8675 NW 53rd Street • Suite 112
Miami, FL 33166-4512
Telephone: (305) 594-5685 • Fax: (305) 470-6599
E-mail: rom@gxc.net • www.gxc.net

another company: GlobalXchange Communications ("GXC").

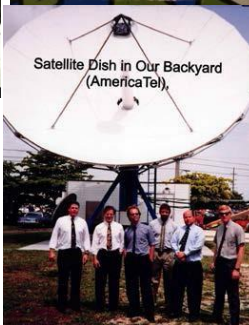
The year: 1996.

The mission: a broader assault on the established local telecom order. The vehicle: a collection of new technologies known generically

as "bypass." Callback described earlier, grew to a one-billion-dollar business. This was a bridge technology, soon to be superseded by more frontal and more disruptive innovations in the existing telecom paradigm.

Private satellite networks. PanAmSat, owned by a brilliant, if somewhat eccentric, millionaire in the Spanish TV broadcasting business, the precursor of modern-day Univision, launched the first private satellite in the early 1980's. (Prior competitive satellite based systems were Tellstar by Bell, IBM/SBS for the business community by IBM). It became a fierce competitor of Intelsat, the official satellite company owned by a consortium made up of 119 countries.

It was a classical David versus Goliath story. David, in the person of Rene Anselmo, teased the formidable foe with full page ads in the Wall Street Journal, sporting his mascot dog Spot urinating on politicians' leg with a motto "*Truth and Technology Will Triumph over Bullshit and Bureaucracy.*"



Crude, but effective.

Rene lived in a lavish mansion in Connecticut. His main ground station, bristling with satellite antennas, the latest technology, and offices befitting the elegance and comforts of boardrooms was located in

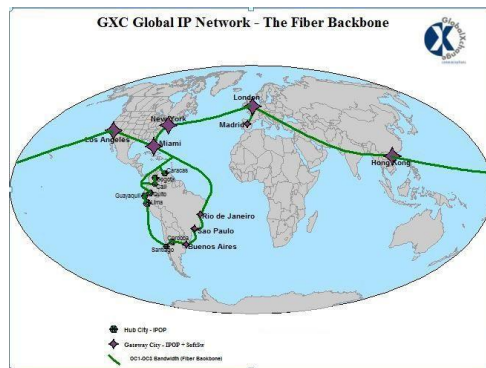
Homestead, Florida. GlobalXchange established direct digital connectivity to Homestead, thus acquiring telephone and data access to much of South America.

Rene, a kindred spirit, passed away in 1995.

GXC subscribed to several other satellite service providers to secure coverage over the most remote corners of the earth.

Fiber optic. Another strategic connection was established with Telia, the Swedish national telephone company. Telia, enjoying monopoly power in its own country, was also developing a competitive position abroad. The GXC data center in Miami became an official node in Telia's fiber network and a gateway to the South America backbone.

The fiber network was used to connect to major cities in the world. Satellite allowed us to reach just about everywhere else that private ground antennas were permitted by local authorities.



Internet Protocol (IP). The incipient commercialization of the Internet in the early 1990's opened up another avenue for bypassing established carriers in the provision of global telephony. Vocaltech, an Israeli startup, invented a scheme for converting telephony into an Internet ready protocol known as "Voice over IP", or "VOIP". This protocol allowed a data network, the public internet, to carry conventional telephony thus bypassing completely monopoly telephone carriers.

GlobalXchange was one of the first new generation carriers to introduce VOIP into the Americas. Because the public internet was still unstable, GXC used access to its private fiber and satellite network to commercialize the VOIP protocol. As the internet matured, and bandwidth became cheaper and more abundant, VOIP became the ultimate standard for telephony. It is now the coin of the realm.

Life with the Swedes: The Telia Partnership

Shortly after the formation of GlobalXchange, I attended the 1996 quadrennial convention of the International Telecommunication Union (ITU) in Geneva, Switzerland. ITU is an official agency of the United Nations. The entire world of telecom attends this event.

At a conference on budding competition in the established telecom paradigm, I came across executives from Telia, the government owned, Swedish telecom operator. For a telephone monopoly, Telia turned out to be avant-garde: its business ambitions aimed far beyond its national boundaries. It established itself as a Tier One carrier *peering* (exchanging traffic) on an equal basis with behemoths such as Deutsche Telekom, British Telecom, Worldcom, AT&T. It also nurtured the latest high-density fiber optic technology and the mushrooming Internet.

The South American region offered a particularly alluring growth opportunity for Telia. GlobalXchange became a natural gateway for serving this market. I was invited to visit Telia in Stockholm where we formulated a plan for a joint venture agreement between Telia and GXC. A side visit to their historical partner, Ericsson, introduced me to the latest IP based technology already out, or about to hit the market. I was already well acquainted with Ericsson: the company had a strong presence in the old Soviet Union.

Shortly thereafter, the joint venture Agreement was signed between Swedtel, the international division of Telia, and GXC in Miami. Our home office became a Mecca for Telia executives seeking to escape their frigid homeland.



The GXC data center became an official hub in the Telia global fiber internet network. Our data center was monitored 24x7 by the Telia control center in Stockholm. Technical Telia



personnel permanently assigned to our office would respond to any engineering issue raised by Stockholm. The Telia- GXC JV quickly spread its presence in Central and South America by attending regional trade shows and making presentations at numerous conferences. Here is a typical Telia-GXC booth at a telecom trade show and conference held in Jamaica. I was honored by the visit of Prime Minister P.J. Patterson.

At the 2000 ITU convention in Geneva, I made a presentation over the Telia network to telephone



The author with Anil Ganatra, CFO, for G 1

operators in the Nordic countries. The subject: *Evolution Strategies for Migrating Conventional Telephony to Voice over IP.*

I had plenty of opportunity to get acquainted socially and professionally with the Swedes.

The people assigned to GlobalXchange moved into rented homes in my own neighborhood in Miami (Doral). In the

process I learned of habits that seemed to be common to their culture:

(1) **Veneration of Santa Lucia.** The Swedes, nominally of the Lutheran denomination, are the most



*Sul mare luccica/L'astro d'argento/Placida e
l'onda/Prospero il vento/Venite all'agile/Barchetta
mia/Santa Lucia! Saaanta Lucia!*

siouxlander.blogspot.com/2013/12/Santa-L-1

agnostic people I have ever met. Yet, they managed to latch onto an obscure Catholic saint from Sicily: Santa Lucia. Every December 13, they visit a local Protestant church to celebrate Santa Lucia. The highlight of the ceremony is a procession of young girls, dressed in white and carrying a candle. The leading girl carries a crown of lit candles on her head. They all sing the Neapolitan version of Santa Lucia while they circle the inside perimeter of the church.

Why a catholic saint? The origin of this tradition is murky. The feast does coincide with the shortest day of the year. Called the *Festival of Light*, the candles apparently symbolize light as the population prepares to cope with the long, frigid, Nordic nights. Lucia, in Latin, is an emitter of light. This semi religious ceremony is followed by lively parties which would make St. Lucia blush... or turn into a multitude of graves, her bones having been scattered throughout a number of countries and churches.

A Nation of Tobacco Chewers. Maybe it is not the whole nation, but most of the Swedes I met were ferocious tobacco chewers. Unlike American baseball players who spit the tobacco, the Swedes ingested it. [They called this smokeless tobacco *Snus*.] Health hazards was presumably minimal. Maybe. Not being a doctor, I could not challenge the assertion. I did find the practice less than appealing... and surprising, considering the level of sophistication of people I was interacting with.

August Shutdown. The entire country simply ceased all business activity in the month of August. We did enjoy a respite on this side of the Atlantic, but come September 1st, Swedes came back roaring. All of a sudden, they were crawling all over our offices. They had unlimited travel budgets. Miami had a magnetic attraction for the Swedes. Many more people came that could be absorbed or corralled into a focused marketing drive. Before long, Telia headquarters must have noticed that the budget for developing the South American market was out of line with expected

results. A slow retrenchment followed. All operational and marketing activities for the Americas were consolidated in Washington, DC. A residual connection to Telia network was retained for a few years, but the partnership was essentially over by 1999.

NAP of the Americas

Global connectivity from the US to the world was centered on three gateway cities: New York, Los Angeles, and Miami. Much of the fast developing intercontinental fiber optic network was centered on these three cities. Both New York and Los Angeles had well established network access points (NAP's) where major carriers were exchanging Internet based traffic. Miami did not.

There was an urgent need to create a neutral location where competing carriers could interconnect in a secure environment: the physical location would have to be easily accessible to the major fiber routes; it would be structurally survivable in any major hurricane; it would be equipped with redundant power generating capacity; it would insure each participating carrier privacy and protection against physical and technical intrusion by competitors and other hostile agents.

An ad-hoc committee of next generation carriers in the southeast Florida was formed to study and recommend the location and outline requirements for a new Network Access Point (NAP) to serve our region and act as a gateway from the USA to and from Central and South America.

GlobalXchange became an active member of this committee. After considering various alternatives locations from Miami to West Palm Beach, the committee settled on Miami. A major developer, Terremark, proposed building a new data center in the downtown area to our specifications. Its owner was enthusiastic enough about its future prospects to actually "bet the farm on it."

Bell South, the monopoly telephone company at that time, proposed an alternative location. The committee rejected the offer on the ground that Bell South was not a neutral party. Bell South was overwhelmed by the collective power of the upstarts and eventually joined the Terremark NAP.



I personally lobbied bankers, telecom carriers, and local institutions in support of the new NAP. I leveraged my extensive network of contacts in the telecom world to deliver the critical first two dozen carriers as tenants in the proposed NAP. That included British Telecom, AT&T, the lamentably defunct, ENRON, Worldcom, and UUNET. I also mobilized Florida International University, the University of Miami, the Miami-Dade Community College, and the Miami-Dade

County Beacon Economic Development Council.

The Barclays Investment Bank was stimulated enough to dispatch a delegation from London to explore the Miami NAP opportunity. I am not clear as to whether it actually invested in Terremark. Verizon, another spinoff of the old Bell System eventually acquired the Terremark NAP. It is now one of the major nodes in the global telecommunication infrastructure.

Cuban by Osmosis

Foray into Cuban Politics

Miami of the early 60's was a somnolent, backwater destination for retirees from the northeast. Fidel Castro's communist revolution in nearby Cuba drove waves of well-to-do Cubans to Miami. The Cubans rapidly displaced the "Yankees." Miami became virtually overnight a Cuban town. The new residents infused the city with a new dynamism, pulsating to the rhythm of a Latin city. It grew spectacularly. This growth is still ongoing, except that it is now populated by a wider collection of Latinos from Central and South America.

Miami had become the de facto capital of South America.

Cubans dominated every aspect of life in Miami: cultural, business, culinary, financial, idiomatic, and political. To function in this city, one became a Cuban by osmosis.

Hard line, rabidly anticommunist, and anti-Castro Cubans nursed a grudge against the federal government for its failure to come to the rescue of militants trying to overthrow the regime in the infamous Bay of Pigs fiasco. This hostility came to a boil with the saga of Elian Gonzalez, the eight-year-old boy caught in a custody tug of war between relatives in Miami and his father in Cuba.

The child left the island by boat with his mother and her boyfriend. The adults drowned in rough weather. The boy was rescued, brought to Miami, and delivered to the care of relatives already in Miami. The father, still in Cuba, claimed the mother took Elian without his consent: he demanded the return of his child. A royal battle ensued in the courts as hard line Miami Cubans rallied in support of the Miami relatives in a very ugly custody battle. Their essential claim was that a Communist could not be a good father. The courts ruled otherwise. The federal government was ordered to retrieve the boy and return him to the custody of his father.

Miami exploded.

Cubans surrounded the child's home in Miami and threatened to resist federal agents if they tried to abduct the boy. Resistance was fierce and dangerous. Weapons were being brandished about. Key Cuban politicians, several of whom I knew, announced their solidarity with the people. They ordered local police not to cooperate with the Feds. A confrontation was inevitable.

On the night of April 22, 2000, an elite unit of the US Border Patrol burst into the house of Elian's relatives. Amid confusion and screaming, true bedlam both inside and outside the house, the agents seized young Elian.



Elian at home in Miami (AP)



AP Photo/Alan Diaz

Border police retrieving Elian (AP)

The child was eventually reunited with his father and returned to Cuba.

The frustrated and humiliated Cuban-American community, vented its rage on the then Attorney General, Janet Reno.... and the governing Democratic Party.

The most immediate outcome was the loss of Florida by the Democrats in the 2000 presidential campaign by the hair thin margin of 400 votes. George W. Bush became the President. It is reasonable to extrapolate that the genesis of the Iraq war was in the Elian Gonzalez' saga, not the alleged weapons of mass destruction in possession of Saddam Hussein.

It also ruined the career of a bright, promising young Cuban American politician: Alex Pangelas, the Miami-Dade mayor and reluctant leader of the resistance to the federal incursion. His candidacy for the broader job of US Senator crashed on takeoff.

I was aghast at the strangle hold that hard line Cuban Americans had on US politics and foreign policy.

The embargo was, and is, the most futile attempt at coercing a regime to mend its ways. Spaniards, Italians, Canadians and Mexican investors were more than prepared to step into the breach. They kept the regime alive long after the Soviets terminated their sponsorship of the communist regime.

A feeble attempt to introduce a more rational view into local Cuban politics was made by Eloy Gutierrez-Menoyo, hero of the revolution that propelled Fidel Castro into power. Eloy, William Morgan, an American adventurer, and Che Guevara, a prominent Argentinean leftist, were the three rebel commanders who joined Fidel Castro as they routed the corrupt, dictatorial regime of

The New York Times

October 27, 2012



Associated Press

Eloy Gutiérrez-Menoyo, far on the right during a revolutionary march in Havana in 1960.

Fulgencio Battista, and swept victoriously into Havana on January 1960. [Picture shows Castro on far left, Che Guevara third from left, William Morgan, second from right, and Eloy Gutierrez-Menoyo on far right.]

The most intriguing character in the parade was William Morgan,

the American adventurer. His life story is highlighted in a feature article on the *The New Yorker*.) Suspicions swirled around him that he was a double agent. Castro suspected he was a CIA agent. He had him executed by firing squad.

Asked to fall on his knees and beg for mercy, he refused. He was shot on one knee. When he failed to drop down, he was shot on the other knee. As he dropped to the ground, he was shot point blank and killed. Only a few months earlier he was cheered as a Hero of

the Revolution. Castro himself was leading the cheering audience. Castro was also effusive in greeting William and Eloy in the picture below.



Both William and Eloy grew disenchanted with Castro as he started flirting with Communism. Rivalry became intense.

Eloy fled to Miami, formed a new rebel group, Alpha 66, and returned back to the Escambray mountains to launch a counter revolution.

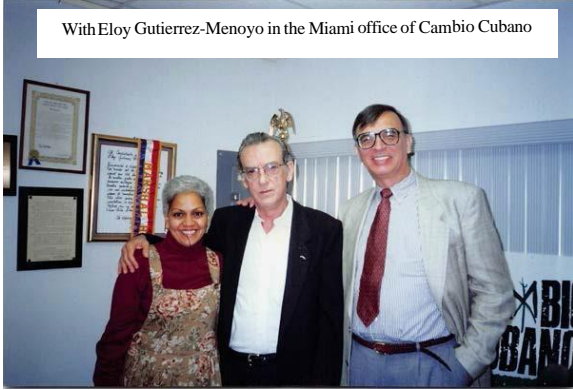
Eloy was devastated when he learned that Castro executed William Morgan, his comrade in arms and personal friend. His resolve to overthrow the budding communist regime needed no further stimulation.

After some skirmishes in the mountains, Castro's superior rebel army subdued the rag tag new revolutionaries. The survivors were captured, including commandant Gutierrez-Menoyo. He was flown blindfolded to the presence of Fidel Castro. Fidel mocked him:

"Welcome back, comrade. You knew you would be captured. If you want me to spare the life of your surviving comrades, you need to make a public statement about how the Cuban people support Fidel Castro."

Eliot was forced to comply. A revolutionary tribunal condemned him to 30 years of hard labor. There he was tortured. He lost one eye and one ear. Twenty-two years into his sentence, the Spanish president prevailed upon Castro to free Eloy (He was born into a Spanish family whose members were active in the 1937 Spanish Civil War.)

With Eloy Gutierrez-Menoyo in the Miami office of Cambio Cubano



Eloy returned to Miami where he founded a new political party called "Cambio Cubano." Its mission was to promote the peaceful transition of Cuba to a Spanish type "socialist democratic" republic. He represented a breath of fresh air on the Miami political scene still traumatized by the Elian Gonzalez episode. I befriended and supported Eloy. He was delighted to welcome a Yankee in his circle of friends.

The Cuban American establishment rejected Eloy as being too moderate: his promotion of dialog, lifting of sanctions, unrestricted travel to Cuba was extremely unpopular. His party never reached critical mass.

Eloy eventually returned to Cuba where he tried to start up a local chapter of the Cambio Cubano. Castro tolerated his presence, but kept him on a tight leash. Castro was never going to permit the development of an opposition party on the island.

I kept in contact with Eloy while he was in Cuba. He led a forlorn life, but he insisted that he wanted to end his days in his beloved island. He died in Havana in 2002.

Business the Cuban Way

The large Cuban exile community in Miami created a strong demand for basic telecommunications between Miami and Cuba. GlobalXchange was involved in this market from day one. Communication was difficult and expensive. The cost of calling Cuba was about five times higher than comparable calls to other places in Central America,

There were a number of obstacles to overcome.

Number one was Fidel Castro. He liked the foreign exchange that telecom could produce for him. He worried about foreign influences on his people. Unfettered communication with the outside world was anathema to him. He understood that it posed an existential threat to his regime. Unfortunately, this simple concept was not appreciated by his enemies in Miami who insisted on isolating him as a strategy for bringing his downfall. [Outcome: all his original enemies are dead. He is still alive and in charge as of this writing.]

The second problem was the American embargo itself. The existing antiquated trunk group connecting directly Florida to Cuba could only handle a few dozen calls at the time. It could not be expanded because the embargo prohibited any further investment that could benefit Cuba.

The third reason was that telephone service was very limited in Cuba. Few citizens owned their own telephone. They had to go to some public facility or to some well-connected friend to place or receive calls from the USA.

To address these issues, a group of Miami Cuban investors hired GlobalXchange to design and equip a number of modern call centers throughout the island. Cubans would be given easy, affordable, and private access to international calls from these centers. US Treasury department, enforcer of the Embargo, was petitioned to allow an exception as a humanitarian gesture. The department approved the request. It granted GXC the license to proceed.

The next step was to develop some form of connectivity between the call centers and the US. The existing underwater connection between Cuba and Key West was saturated and subject to government interception.

I went to Cuba with a delegation from Washington to explore feasible solutions, as well as work out financial arrangements which would be acceptable to the Cuban government. Ministry officials insisted that all calls, inbound AND outbound be paid for by the US party in the

connection. A percentage of the revenues would have to be remitted to Cuba in US dollars. We were not sure such arrangement would be acceptable to the US Treasury Dept.

We explored two routes for connecting Cuba to the mainland: first one was adding a Very Small Aperture Terminal (VSAT) to every call center. This would allow connecting each call center directly via PanAmSat satellite to the main ground station in Miami. Each call center would also be equipped with emergency generator to supplement the uncertain source of local power.

The second solution was to hop onto an Italian satellite connection using the extensive and up to date transmission and switching capacity which the Italians already owned in Cuba. Our traffic would then be detoured from Rome to Miami via inter oceanic fiber optic.

Telecom Italia was eager to acquire our business. Their facilities on the island were first class. They took my delegation on a tour. Their switching and control centers were impressive. Not a trace of American made equipment anywhere. The embargo obviously penalized our own telecom manufacturers.

American influence was evident in the cars. Except for some late model Mercedes Benz vehicles on the road, probably assigned to government officials, other common vehicles were old dilapidated LADA vehicles of Soviet manufacture, and old American jalopies from the fifties. Cubans were very resourceful when it came to maintaining these dinosaurs long after they were supposed to expire.

On some unescorted (I think) sightseeing around Havana, I noticed murals extolling the glory of the revolution. The largest one was dedicated to Che Guevara, the third commandant of the Revolution.

After the Cuban victory, Castro dispatched him to foment revolutions elsewhere in the Americas. He was eventually captured and killed in Bolivia. It was obvious that Castro was a good student of Macchiavelli's Prince: first step in taking power is to dispose of all your enemies, rivals, and prospective rivals. Che Guevara was safely dead before he granted him a prominent place in the pantheon of revolutionary heroes. The other two principal protagonists, Gutierrez Menoyo and William Morgan, didn't even earn a posthumous honor.

A slogan scattered all over Havana was *Socialism o Muerte*, socialism or death. I found it amusing. The cynicism of the people I encountered convinced me that only morons would subscribe to that challenge.

I also visited a famous restaurant, *La Bodegita del Medio*. It was a hangout for intellectuals, free spirits, and tourists. Ernest Hemingway was a loyal patron. Prominent at the restaurant was a Che Guevara banner. I couldn't resist the temptation of clowning under the banner with a member of my delegation.



Notable were:

The scenes of major roads bereft of any sign of life. Children also appeared to be malnourished and underdeveloped for their age.

The real surprise was the pervasive and ubiquitous presence of prostitutes brazenly peddling their services. They were obviously tolerated by a regime that promised a revolution against corruption of all kinds, prostitution in particular.

The food was dismal. State restaurants were nonexistent except for establishments catering to

foreign tourists. The latter had plenty of quality food imported mostly from the countries which invested in hotels. Cubans were denied access to these hotels.

Buildings, not just cars, were crumbling. The architect responsible for maintaining a scaled model for the city of Havana told me that that the only multi story structure built since the Revolution was the headquarters of the national communist party. No existing building was painted in the meantime.

The 9/11 Disaster

My AT&T office, located at 195 Broadway, was just about one block from the World Trade Center (WTC) towers. I was a commuter on the train connecting New Jersey to lower Manhattan. The terminal station was under the towers while they were still under construction.



Standing below my old AT&T office

The hustle and bustle of construction mixed with the sound and fury of vehicular traffic, the smell of fumes, the aroma of coffee shops, the roasting of chestnuts by street peddlers gave the whole area an aura of controlled pandemonium.

Hordes of commuters went about their daily treks to the offices and trading floors of nearby Wall Street oblivious to the teeming life surrounding them.

When the disaster of 9/11 struck, I was in my office in Miami. I received a call from my daughter that something terrible was happening at the World Trade Center. I rushed to a TV equipped conference room. What I witnessed was beyond disbelief. I could not absorb what was happening to my old stomping ground. While in a state of shock, the second airplane struck. Tears could not flow. A quite paralysis froze my emotions.

When I resumed normal breathing, my eyes welled with tears. I looked up seeking my God's explanation and comfort. Images of ghostly looking survivors began streaming out of the towers and their immediate vicinity. Then the horrible images of people tumbling out of the towers: They were choosing their way of death.

News broke of a third hijacked plane hitting the Pentagon... and a fourth one crashing in the fields of Pennsylvania. Military jets were being scrambled. All commercial flights in the USA were grounded.

Subway service in New York was halted. Agents for the Alcohol, Tobacco, Firearms ("ATF") administration, a co-tenant in my Miami office building, scrambled for the roof with machine guns drawn.

They posted armed guards at all our entrances. Unreal. The USA was under assault.

As reports of suspects and their origin began to filter in, shock began to give way to rage, humiliation and a desire for revenge. Yet, amidst the chaos, death, and unbounded grief there sprouted the most beautiful symbol of life renewed: love.

Dazed survivors exiting the towers fell on their knees, hugged perfect strangers, carried wounded on their shoulders out of the raging inferno. The people who hurried every day to their appointed rounds finally noticed the humanity of their neighbors. The nation, always politically fractious, was coming together in unity behind a president who three days after the disaster mounted a pile of still smoldering debris, hugged a fireman, and shouted into a megaphone:



WTC Soot engulfing my old office. Time Magazine 9/11/2011

I hear you. The rest of the world hears you. And the people who knocked these buildings down will hear from all of us soon.



Bush Ground Zero - Public Domain - Eric Draper - The George W. Bush Presidential Library

The saddest episode of my life: a nation armed to the teeth was brought down by nineteen terrorist armed with nothing more sophisticated than run of the mill box cutters brought a nation to its knees.

The Commission charged with investigating the disaster, came up with the most intriguing explanation for the source cause: *it was a failure of imagination*. All our missiles, all our

atomic bombs, all our sophisticated intelligence failed us miserably.

Our response in the form of wars in Afghanistan and Iraq was totally disproportionate to the nature of the threat faced. We became more bellicose, more xenophobic, and more paranoid.

About a month later, I visited Ground Zero. The ruins were still smoldering. People milled about bewildered. Missing person flyers were posted everywhere. I felt the pain. Intensely.



I visited the site a couple of more times afterward to witness the slow process of rebirth.

The last time, thirteen years later, was exhilarating when I wondered at the marvelous new structure that replaced the old towers and all the new construction surrounding it.

I also visited the just completed 911 Museum. It sports a great reconstruction of the events of that terrible day and its aftermath. Seeing those first responders load themselves up with masks, oxygen tanks, hoses, one other paraphernalia of their trade and march upward into a raging inferno is absolutely heartbreaking.

This was the last time I will visit the site. The emotional scars are seared into the memories of all Americans who lived through that period. It is the event that defined us all as Americans.

Every time I see a fireman all geared up responding to some emergency, I see a superhero. The urge to hug him, or her, is my way of expressing my gratitude for the heroes who gave up their lives on 9/11.

Telecom: The Last Hurrah

The Telia wobble in the South American market forced GlobalXchange to seek further



capitalization from a Kuwaiti client who was also a major investor in telecommunications. The main goal was to grow the company rapidly to take it public via an Initial Public Offering (IPO).

The Arabs formed an investment holding company, Transat-GXC. Two New York attorneys, pictured on the left with Frinee, experts in mergers and acquisitions (M&A's), ensconced themselves in our offices for a period of two months. Their mission: prepare the massive documentation required to fold GlobalXchange into the Transat holding company in anticipation of issuing the IPO.



The M&AAttorneys celebrating the IPO-rea 1

dollars into Transat-GXC in preparation for the IPO. An enormous amount of management energy went into this effort to the detriment of management of the fundamentals of the business.

The high tech boom in the stock market was beginning to give way to the bust. Major players were sinking. Enron and WorldCom were the most spectacular examples. GXC had multiple



Formal IPO Ready Agreement signature (above). Super friend OE Philpot, a visitor, acted as a witness (below)

business relationships with both these companies.

The Kuwaiti investors lost faith. They sold their interests for a pittance to South American investors. My expectations for the multimillion dollar payoff evaporated with this sale.

It was time to deploy the escape parachute which was negotiated earlier in the M&A process. The time was also ripe for me to finally retire from my passion for operating on the "bleeding edge" of the technology. A new chapter of my life beckons.

The Hail Mary Pass

As we were phasing out of telecom, Frinee, seventeen years younger, began to dabble again in construction. A civil engineer, she acquired Florida certification as a General Contractor and formed her own company, Avant Construction. Her first job: construct a hurricane hardened data center for TRANSAT-GXC. She quickly expanded to residential and commercial construction, including the rebuilding of a hurricane ravaged school for the Okeechobee Indians in the Everglades.

Having retired from the Miami-focused telecom scene, we decided to cultivate a branch of Avant in southwest Florida, an area stretching from Fort Myers to Sarasota. Life was more slowly paced; land for construction was more abundant; the residential market was booming. Several members of my immediate family were already retired in the area.

We leveraged our capital to acquire dozens of lots in Punta Gorda and Cape Coral where Frinee began constructing homes to be sold in the hot market of the day. She also used her crews to build the basic structures of hundreds of homes for developers and larger builders.

Clouds were beginning to gather. The housing market was overheating. Speculative fever was rampant.

I sensed trouble ahead. I thought it was prudent for Frinee to lower her risk profile and reduce the business risk.

Easier said than done,

Avant was caught in a web of commitments to financial institutions, clients and their due dates, suppliers, and sub-contractors. Many of these relationships were embedded in legal contracts. Untangling them would take time.

The housing bubble began to pop in 2006. It virtually crashed in 2007. Prices dropped precipitously. The industry was coming to its knees. Commercial clients began to default on Avant. Several went out of business.

The situation was getting uglier by the day.

Survival became paramount. Eager to save Avant, Frinee took drastic steps by virtually eliminating payroll, moving operations to less expensive quarters, reducing all overhead expenses to the bone. Avant retreated to pay as you go residential remodeling, commercial build out, and demolition services on behalf of local governments.

Although she managed to fulfill all her obligations toward employees, sub-contractors and material suppliers, it quickly became evident that the one killer expense which could not be supported any more was the servicing of debts to financial institutions.

Properties owned by Avant and its principals were financially "under water." The real estate market collapse meant that outstanding mortgages were greater than the market value of the amount owed to the banks. There were no signs of a quick turnaround in the market. Banks were getting restless and less forgiving.

The only feasible way to dispose of properties was by way of a "short sale." That is a sale for less than their mortgaged amount.

Hard choices had to be made. Continuing the struggle and trying to keep the banks at bay risked losing any hope of eventual recovery.

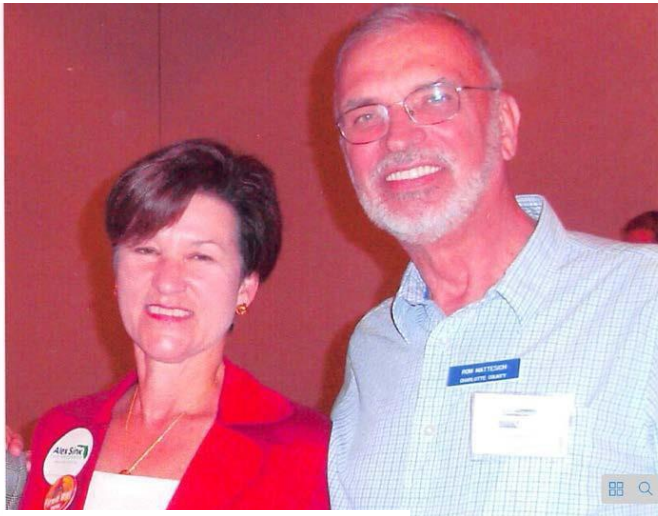
Abandoning the properties and letting banks absorb the losses risked damaging a sterling personal credit history with unfathomable consequences.

After much reflection, hope for recovery prevailed. Invoking a football metaphor, we launched operation "Hail Mary Pass." Avant would absorb trade losses, but banks would be asked to share by absorbing the loss side of short sales. This was a high risk strategy but worth salvaging the intangible assets of company reputation, customer and suppliers' networks, claim to longevity, licenses to operate, and the supporting infrastructure that has been created over the years.

Avant has been limping along, but it has weathered the worst recession since big depression times. It is now poised for a strong rebound. The gating issue is need for new, energetic leadership. Time will tell if the Hail Mary strategy will really pay off. As of this writing, the business outlook is very promising.

One More Fling at Politics

The interminable wars in Iraq and Afghanistan soured this author, a longtime Republican, on his party: smitten by the hope and change promoted by Barack Obama.



Alex Sink, Florida gubernatorial candidate, 2010

I became active in local Democratic Party politics.

Elected chairman of the party in Charlotte County during the 2010 campaign cycle, I spearheaded the local campaign on behalf of Alex Sink, the democratic candidate for the Florida governorship. Alex came within a whisker of winning the governorship in a disastrous year for the Democratic Party

nationwide. Her wealthy opponent outspent her two to one: a real demonstration of the power of money in politics.

But, more consequential, was the rise of the Tea Party, an inchoate new force on the political scene: a super conservative movement, nostalgic for the America of 200 years ago.

President Obama presided over a massive expansion of the federal government with programs known contemptuously as banks bailout, stimulus, and Obamacare. I supported these programs. They were, however, anathema to conservatives pining for smaller government, lower taxes, and fewer regulations. The grass root, populist revolt that ensued, egged on by powerful financial interests, infused the Republican Party with enormous new energy. It swung the party far to the right of my comfort zone.

President Obama lamented that the Democratic Party took a "shellacking". It was more like being hit by a tsunami. Democrats, smug with the hard fought victory of 2008, full control of the

Congress and the White House greeted the Tea Party with a measure of disbelief and apathy. A recipe for defeat.

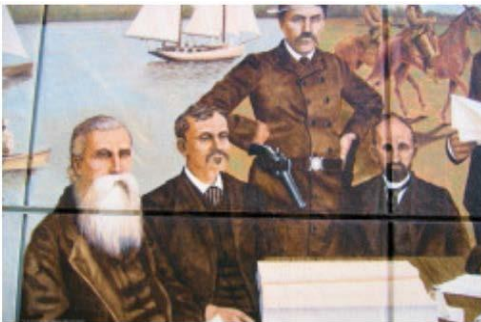
The demographics of Charlotte County offer fertile ground for the growth of Tea Party activism: overwhelmingly older whites, retirees from the US Midwest, veterans, a minuscule presence of Latinos and African-Americans.

The most common social gathering place is the anteroom of doctors' offices. The ubiquitous Fox News channel blaring away elicits spontaneous comments from patients long past their primes, walking or breathing with great difficulty, yet combative enough to hurl blood curling vitriol at the President and his lieutenants. Cries of impeachment, civil disobedience, calls to arms, refighting the civil war, shipping the President back to Kenya are common. Letters to the local newspapers reflect much the same sentiment.

The bewildering aspect of this antagonism is that it springs from people who fought for freedom and democracy... and are the most prominent recipients of largess from the federal government. I cannot but conclude that much of the hatred stems from repressed instincts of racism and fears inspired by the rapidly changing demographics of this country.

If one can get past the harshest part of local politics, one will discover that Punta Gorda is a wonderful town, full of actually wonderful people. The town came together in a spirit of unity and civic pride to rebuild after hurricane Charley devastated the small town in 2004.

Team Punta Gorda was formed to mobilize the citizenship around the goal of rebuilding the town.

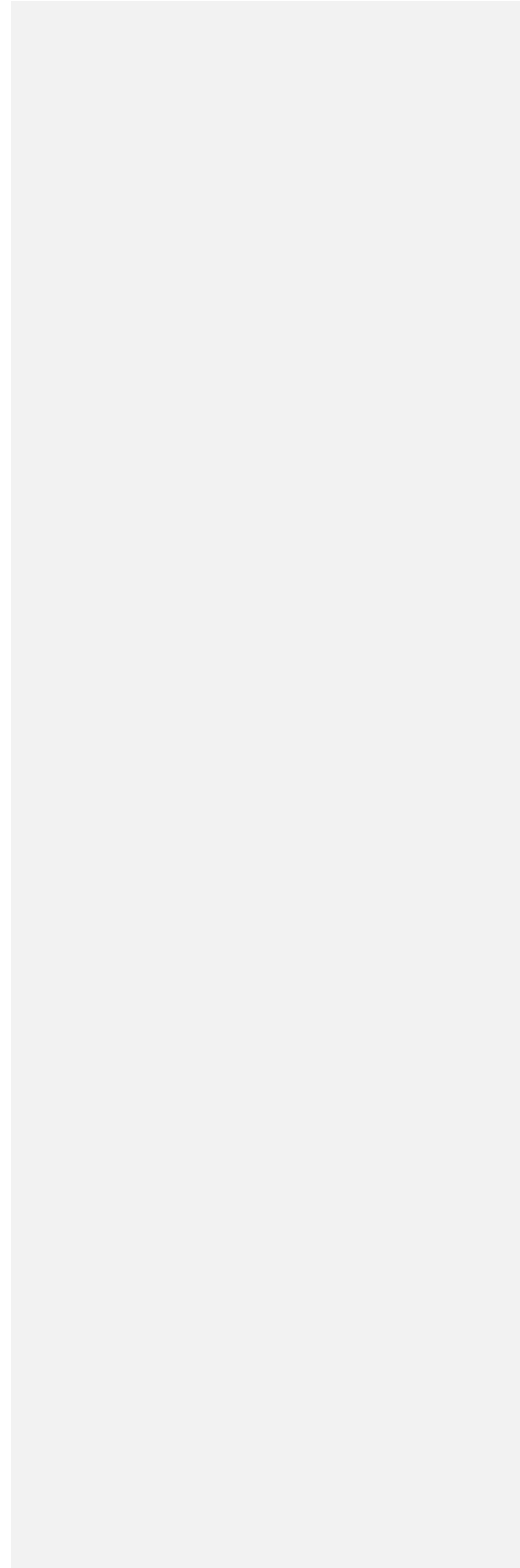


Mural on wall of Punta Gorda City Hall

It drove the reconstruction with an enthusiasm and energy worthy of Rosie the Riveter of World War II fame. For a town that shuts down by 8PM, it was amazing to watch the spirited town hall type meetings well into the night debating priorities, plans, and schedules for future action.

Team Punta Gorda also gave rise to a vibrant Chamber of Commerce. Separately, a Committee, the Punta Gorda Historical Mural Society, used the most prominent

structures in town to paint scenes on the life and history of Punta Gorda. This town is a real work of art... and love.



At the End of the Rainbow

The construction business was based in Miami. Slowly, the center of gravity shifted toward the West coast. The aftermath of hurricane Charley (2004) accelerated business growth in the Fort Myers to Port Charlotte area. It necessitated an almost daily commute across the Florida Everglades. We eventually rented different apartments to be closer to key construction sites and return to the Miami home on weekends.

Restoring a hurricane damaged home in Punta Gorda, we decided to purchase it and use it as a base for our business on the west coast.

The conveniences of home are still in Miami, but most of our business is conducted from our Punta Gorda home, and a nearby office. Our social life is now bicoastal. Frinee and I have concluded that upon retirement, we will move to some permanent condominium in Punta Gorda and finally dispose of our permanent residence in Miami.

In Punta Gorda I have been introduced to a new dimension in life: serving the homeless. Over the years I have contributed anonymously to numerous charities. I have led Intra Company fund raising drives for such charities as United Way. Thanksgiving, an occasion for celebrating the holiday with sumptuous meals, always reminded me that the next such holiday I should spend serving the derelicts.

Never did.

Until I came across some wonderful people who introduced Frinee and me to the kitchen serving the



Ready to serve: Author with friends Luciana, Dave and Silvana.

homeless of Port Charlotte. We volunteered for weekly service. It is the highlight of the week. Frinee serves the meals. I wash the dishes: my expertise from long time ago.

We bring the derelicts a moment of joy. It is touching to get a sincere thanks from people who are the outcasts of society. Physically or mentally handicapped, ex-felons, children with

one or both parents in jail, drug addicts: many of these people would not qualify for even the most menial jobs.

Several homeless people live in the woods across the street from the shelter. All they have to do is show up: we serve them.

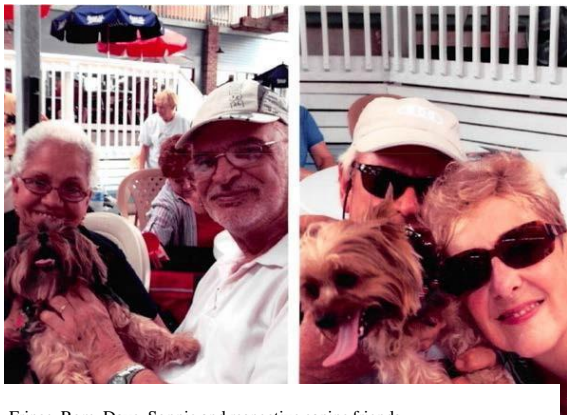
Happier than the receivers are the givers. For those of us interpreting the Gospel as a mandate to serve the less fortunate, giving is the most fulfilling gesture of the Christian faith.

Most of my social friends, and neighbors, are staunch Republicans. They are surprised to learn that I consider myself a liberal. We have learned to respect each other foibles, and communicate past the talking points spouted by the politicized media.

I mourn the loss of civility and bonding across the aisle in Washington. Everyone retreats to his (her) ideological bunker and fires away.... sort of like the trench warfare which characterized WWI. The well has been so poisoned that it endangers whatever leader emerges post-Obama. I have given this message to my Tea Party friends with scant success.

One other discovery I made late in life is that walking the dog is the best way to make friends, and break through social and political barriers. [The dog better be friendly. An aggressive dog has the opposite effect.]

Coco, our beloved fifteen year old Yorkies, gave us lot of joy, comfort, and loyalty. Most importantly, he brought us lots of friends. The latest ones, Sonnie and David Bird are depicted here in the collage with our respective Yorkies, Coco and Brutus.



Frinee, Rom, Dave, Sonnie and respective canine friends

Sonnie and David, members of a neighboring Presbyterian Church, are leading the outreach mission for their church. They introduced Frinee and me to the joy of serving the homeless. They also actively support a program for feeding and clothing tomato picking migrant workers in the farms surrounding Immokalee (Collier County, Florida). The downside: our garage is now full of used clothing, shoes, and furniture

that Frinee enthusiastically collects on behalf of the migrants: I have lost every opportunity, and desire, to clean out the garage.



Frank and Mary Mazur, do-gooders-par-excellence

Politically further to the right than the Birds is another beloved couple: Mary and Frank Mazur.

Mary is active in the Punta Gorda Historic Mural Society. Her task: make Punta Gorda the most beautiful little town in the US. Each mural is a work of art.

Frank is civic oriented. He is wired into local politics. As an engaged member of Team Punta Gorda, he has been instrumental in a project which makes available bicycles, free of charge, to visitors who want to exercise and explore the beautiful, harbor hugging pathways of historic Punta Gorda.

Friends like these, and other very civic minded right wing conservatives whom I am delighted to call my friends, convinced me that Punta Gorda will be the final destination in my peregrinations. Peel away their surface hostility to any idea that smacks of liberalism and you will discover some exceptionally talented and generous people. The innate beauty of America is hidden right beneath the skin.

I remain the eternal optimist

Epilogue

It took a book to answer the query "Where are you from?" I extended it to delve into broader questions such as "Who am I?" and "Where am I going?" The first question is rather lengthy and complex. The second one is simpler: I am proud to be an American.

I lived the American dream. This country is truly exceptional. A family of immigrants, scarred by the trauma of World War II and its aftermath, was welcomed with open arms. Three of the five children managed to get a college education. This achievement alone speaks volumes about social mobility



in America. No such outcome was even remotely possible in Europe.

The above picture was taken on the occasion of my son Eric's wedding in Las Vegas. The frail lady on the right, my mother, fought her way from Sansego, to Marano Lagunare, to Genoa, to America. She spawned the extended family on the left: the quintessential American story alive and well in my lifetime.

Capitalism, free trade, free press, freedom of religion, the rule of law, trial by jury of peers, freedom of assembly, freedom to succeed or fail, these are the hallmarks of a mature democracy. My family directly benefitted from, and contributed to, the economic and social development of its adopted country. It is the reason I titled this book "Peregrination of an *American* Immigrant". No matter where in the world I travelled, I was always, first and foremost, proud and honored, to be an American.

We are not yet a perfect union. Two major problems that weigh on my soul are lack of universal, affordable, quality health care, and Americans' infatuation with guns.

As of this writing, President Obama's Affordable Health Care Act is being introduced against ferocious opposition from the Republican Party. The jury on its eventual success is still out, but I give the President lots of credit for spending so much political capital on this issue.

The guns issue is far more puzzling. Guns seem to have a near religious hold on this country. I am not certain what animates the cult of the gun in this society: whether it is truly devotion to the second amendment of the Constitution, our roots in the cowboy culture of the old West ("Praise the Lord, and pass the ammunition"), a desire to reopen the wounds of the Civil War, a true fear for personal safety, or politicians terrorized by the lobbying power of the National Rifle Association. Whatever, I was scandalized by the failure to even pass background checks legislation to keep guns out of the hands of mentally unstable individuals, terrorists, and felons. I am afraid our beloved country will have to be subjected to more brutal massacres before the conscience of the nation is motivated enough to begin bringing sanity and common sense to this dark corner of our collective psyche.

My experience with Communism and its eventual demise took me back to Russia. I might have been harsh on the Russians. It's an enormous country, blessed with immense natural resources. The population is well educated, but their transition to democracy and the rule of law has been wobbly, to say the least. Corruption and crime are rampant. If and when Russia becomes a more open, democratic society, it will become a true superpower.

The arc of my life took me around the world. It crossed two centuries that happened to also cross two millennia. My values were formed by my Christian roots: Catholic in particular. I have been exposed to other branches of Christianity and discovered the dynamism of the more evangelical forms. They have my respect and affection. I do reject the notion that any one branch has a superior moral claim on the love of Jesus.

For that matter, I also believe that all humans have been touched by different manifestations of the same God. It is not for me to cast judgment on the values and righteousness of their cause. I am parroting here our new Pope Francis, a true breath of fresh air. I must admit, however, that I also like the pageantry, rituals, and even the old Latin mass of the Catholic Church I always knew.

Dear reader, thank you for staying with me to the end. I covered lots of ground. I trust I offered you some new insights and interesting new perspective on our recent technical, business, and political history. Throughout the many vicissitudes of life, I have kept my mind open to the discovery of new ideas, new cultures, and new people. I can truly say I have been blessed to experience the richness of life. In its sunset, I am indeed grateful.

Postscript

When I wrote the Epilogue chapter, I thought I described all significant events that shaped the arc of my life. I was looking forward to an uneventful retirement.

Not so fast.

At age 86, I had to experience more events that shook my faith in the longevity of the form of government which lasted over 250 years. This government produced a democracy unique in the annals of history: a constitutional republic, a beacon of freedom, democracy, respect for the constitution and the rule of law which enshrined the peaceful transfer of power as successive, competitive parties gained control of the government.

A trauma of national, global, apocalyptic proportions interrupted the march toward the goal of creating a perfect union.

From the Chinese city Wuhan, there emerged a virus with the potential for destroying civilization as we know it. Called officially COVID-19, colloquially *coronavirus*, this virus took flight with the onset of the new decade, the 2020's. Within a couple of months, it engulfed the civilized world. Only the Arctic's have been spared.

Not only is the virus spreading itself with incredible speed, but like death, it spares no one: poor people, rich and powerful people, young and old, health care providers, liberals, progressives, conservatives, kings and commoners, men, women of every race. This scourge is a great equalizer.



As of this writing, it claimed 64 million deaths worldwide. The US is now number one in the world with over 1,000,000 victims. We are still climbing the curve waiting and dreading as to when and how brutally is the peak going to manifest itself.

This author and wife Frinee took the calls for mitigation to heart.

All social interactions, including close family, have been eliminated. Stepping outside the home was limited to walking the dogs: Benji and Mollie.

While we fought the virus from the comfort of our home, a new breed of “heroes” emerged: health care workers risking their lives to minister to the extremely sick and dying victims of the virus. Doctors and nurses are under enormous stress. The adjacent picture show three Chinese nurses comforting each other during a break from their struggle to resuscitate patients who are fighting suffocation from damage inflicted on their lungs.



TPG via ZUMA

Doctors and nurses are on the frontline of this war on the Coronavirus. No less heroic are the first

responders (firemen, paramedics, policemen, ambulance drivers), grocery employees, and even the janitors who clean/and sanitize the halls of hospitals. They also risk their lives by exposure to the victims of this extremely contagious virus.

In these stressful times, I cannot resist lightening up my life with some more black humor from my favorite cartoonist: Dilbert by Scott Adams. He brilliantly captures the spirit of his age.

Wednesday April 22, 2020 *Stress Can Kill You*



Almost concurrently with the onset of the virus, the current US president, Donald Trump, was entering the last year in office. This president exhibited a contempt for our beloved constitution, the rule of law, and the norm which we have grown accustomed to.

He also demonstrated a great respect and admiration for the worst dictators on earth whom he wanted to emulate. He refused to accept the results of the 2020 election thus poisoning the political process which undergirded the electoral system. I am now watching with trepidation the outcome of the forthcoming 2024 election. Win or lose, the country is going to probably experience another scourge, Political in nature, but hopefully not as serious.. This situation is approaching perfect storm.

(The above Dilbert cartoon serves as double duty (two scourges in one cartoon), Its author, Scott Adams, ran afoul of the many media outlets for dabbling into odious racist rhetoric. Scott is now a non-person.)

[Back Cover] The author: Rom Mattesich



Biography. Rom Mattesich is a Croatian born telecommunication engineer. He migrated to the USA under a special visa program for refugees from Communism. A graduate of the University of Virginia, Rutgers, and M.I.T. (on a NASA fellowship, a program created in support of the lunar landing project) he joined Bell Laboratories as a system engineer engaged in the conversion of the US telecom network to all digital technology. With the dissolution of the then Bell System, Mr. Mattesich founded an international telephony company which began offering lower cost voice and multimedia

services in competition with established monopoly carriers using nascent technologies such as call back, private satellites, internet, and fiber optics. As a speaker at various industry symposia, author of numerous articles in trade journals, lecturer at the University of Miami on the subject of strategies for operators in the international telecom arena, Mr. Mattesich developed a thriving consultancy business with several telecom companies in the Americas and Europe.

A unique opportunity arose in the late eighties to actually consult for the Soviet ministry of communication at a time of dramatic internal changes. This opportunity had its genesis in the ill fated Soviet invasion of Afghanistan. Still scarred by its youthful brush with Communism, Mr. Mattesich embarked on an exploratory adventure: to witness history first hand. In two years of crisscrossing the Soviet Union and several of its satellites as a

consultant to various governmental agencies, Mr. Mattesich had to expand the scope of his technical consultancy to cope with all sort of unexpected challenges brought about by the rapidly collapsing political, economic, and social environments of the Soviet Union. It was the experience of his lifetime. He is now partially retired, busy supporting his civil engineer wife in the construction business in Punta Gorda, Florida.