Chapter 3

San Francisco Chronide to NMERDI

I should have been as happy with a reporter's job with the *Chronicle* as a sailor on shore leave in Hong Kong but the assignments I received from the city editor, Abe Mellinkoff, were dull compared to the adventure that had gotten me the job. I was particularly thrilled, however, to work reporting assignments with *Chronicle* photographer Joe Rosenthal whose Pulitzer Prize-winning photograph of five Marines and a Navy corpsman raising an American flag atop Mount Suribachi during the battle for Iwo Jima was well known to me. However, the reporting assignments I had were mostly dreary and I sought a repetition of my Treasure Island escapade, which I soon found by courtesy of Haight-Ashbury Free Clinic Medical Director Dr. David Smith. At that time, the 1967 Summer of Love, the Clinic had been open since June and I had retired my Berkeley attire for the usual dress shirt, coat and tie of a working professional, but when occasion required I could re-costume and mingle modishly with the Haight-Ashbury crowd and not be recognized as a reporter from the alien Establishment newspaper.

It is appropriate now to mention that my father Victor H. Vogel, MD, had retired from the United States Public Health Service several years earlier. In the spring of 1967 the third edition of the classic book he had coauthored in 1954 with the sociologist and linguist David Maurer, *Narcotics and Narcotic Addiction*, had been issued by the publisher Charles Thomas and Sons. Three years earlier my dad had been appointed drug tsar of the State of California by Governor Edmund "Pat" Brown. In 1966 Gov. Brown lost his bid for a third term as California's governor to Ronald Reagan and the new governor in 1967

immediately reappointed my dad to the position he held in the Brown administration.

My dad was then the nation's leading Establishment authority on the subject of narcotics and narcotic addiction. By 1967 the book by Maurer and Vogel was everywhere in the country the definitive informational text for the medical profession, law enforcement agencies and the judiciary. Therefore when I introduced myself to David Smith at the Haight-Ashbury Free Clinic as a *Chronicle* reporter and my father's son, and said I wanted to know exactly what the hallucinogenic drug STP was, and where it had come from, I had the answer a week later.

STP had become the latest preferred mind-bender in the Haight-Ashbury and was causing some very bad trips that local emergency room physicians did not know how to properly treat because no one knew what the drug was. Since no one knew where the drug had come from, it was impossible to immediately know the drug's chemical composition and if tranquilizers like Thorazine would help or hinder recovery from the drug's effects. There was also considerable anxiety in the medical community, which anxiety had been reported by the *Chronicle*, that the drug might cause permanent cognitive and genetic damage to those who used it. David Smith gave me a telephone number and said I should wait two days, call the number and speak with the man who would answer the call. Today, Dr. Smith heads the 22 San Francisco Bay area facilities of Haight Ashbury Free Clinics, Inc.

Three days later I called the number and learned I was speaking with Alexander Theodore Shulgin, Ph.D. Sasha, as he is known by acquaintances, introduced himself as the chemist who had developed STP for Dow Chemical Company at its laboratories in the San Francisco East Bay. This was significant news because *Chronicle* reporting on the drug to that time had intimated that STP was probably a Hippie-Communist conspiracy concocted to destroy the minds and stir-fry the gene pool of American youth. Although abominated by the political Left because of the company's massive and very profitable production of the napalm used by the U.S. military in Vietnam, Dow

Chemical was in the view of the Establishment, and the *Chronicle* city editor, a moral and ethical pillar of America's industrial might and genius.

Editor Mellinkoff, who must be commended for the newspaper's frequent editorial plumping for Guide Dogs for the Blind, would later align the influence of the *Chronicle* in lavish praise and support of the up-and-coming psycho of the San Francisco People's Temple, the Rev. Jim Jones, whose pious pilgrimage ended with the mass suicide and murder of 913 of his flock—276 of them children—when at gunpoint on 18 November 1978 they drank their cups of cyanide-laced Kool-Aid at "Jonestown," French Guyana. Editor Mellinkoff was not alone among the Establishment and the Establishment's entourage of "good" liberals in that collective delusion of the Rev. Jones' sanity and sanctity; others were California State Assemblymen Willie Brown and Art Agnos, pastor of San Francisco's Glide Memorial Church Rev. Cecil Williams, NAACP President Joe Hall, American Indian Movement (AIM) leader Dennis Banks, gay activist Harvey Milk, California Governor Jerry Brown, California State Senator Milton Marks, San Francisco Mayor George Moscone, and Ben Brown, a member of President Carter's Transition Team.

By the time I put my finished copy of the STP "Inside Story" on the city editor's desk I had shown that Dow Chemical had produced scores of hallucinogenic drugs and that the United States Army was also active in developing those drugs at several ultra-secret laboratories, notably the Army's Chemical Center and School at Fort McClellan, Alabama. The Army had produced many hallucinogenic drugs includeing LSD, JB 314 and Agent BZ, which the Pentagon described to me as "our standard incapacitating agent." Agent BZ could be sprayed in combination with a faintly oily base and would be absorbed almost immediately through the skin, which convenience led the Army to consider plans to use the same airplanes that sprayed defoliants and Agent Orange in Vietnam to lay down an hallucinogenic mist of Agent BZ over Hanoi and Haiphong harbor with the anticipation that the U.S. Marines would quickly take that harbor and capital city from the defenders, befuddled in hallucinogenic disorientation, and the Marines would win the war.

Shulgin, my article reported, complained that rumors in the San Francisco and Berkeley drug scene had named him as the man responsible for the leak of the drug's formula from Dow. "That," he said, "is an absolute fabrication." I was told that Sasha's son had graduated from Berkeley about the time that STP had first entered the Bay Area drug scene. Those rumors intimated the chemical formula for STP had been a graduation present that permitted the son to earn his fortune before the Government would declare the drug illegal. In any case, that was one of the rumors I heard but did not report. Students interested in learning more about Alexander Theodore Shulgin and his life's work in psychopharmacology can start their inquiry with the cover story of the June 5, 2000 issue of *Time* magazine, "The Lure of Ecstasy" by John Cloud:

"Alexander Shulgin, 74, the biochemist who in 1978 published the first scientific article about the drug's [Ecstasy, MDMA] effect on humans, noticed [a] panacea quality back then. The drug 'could be all things to all people,' he recalled later, a cure for one student's speech impediment and for one's bad LSD trip, and a way for Shulgin to have fun at cocktail parties without martinis . . . Many of the [late 1970s] therapists had heard about MDMA from the published work of former Dow chemist Shulgin. According to Shulgin (who is often wrongly credited with discovering MDMA), another therapist to whom he gave the drug in turn named it Adam and introduced it to more than 4,000 people."

The article from which this excerpt is taken is available at:

http://www.time.com/time/magazine/article/0,9171,997083,00.html.

City editor Mellinkoff was not delighted with my initiative and reporting that showed STP had somehow entered the San Francisco drug scene from the research laboratories of Dow Chemical Company. I had researched and written the story on my own time, had not told him I was working on it, and immediately he had read the lead paragraph he was livid and refused to publish the story. He actually threw my copy back at me across his desk. I was prepared for that likelihood and I had contacted the San Francisco bureau of *Life* magazine and had a firm offer of \$5,000 for the story if Abe wouldn't publish it. I was then earning an annual salary of \$3,400 at the *Chronicle* and was fully prepared

to go with the *Life* magazine offer if Abe refused, and I told him so. Abe was not accustomed to being jerked around by anyone, and never by a cub reporter, but he picked up his telephone and called the Dow Chemical regional vice president and after two minutes of conversation decided the *Chronicle* would publish the story. Two days later it was printed at the top center of the front page and would have had the banner headline that morning except Henry J. Kaiser died during the night and that notice got the banner in the late-hour page make over.

I become a magazine editor.

During the next two months I became aware that my future at the *Chronicle* was doubtful and Charlie Howe told me a position was open for an assistant editor in the San Francisco bureau of the McGraw-Hill trade monthly *Electronics*. Apart from the well researched and well written articles I had done for the *Chronicle* my only commending qualification to be an assistant editor with the world's then leading electronics industry news magazine was that I had studied relativity theory one semester at Berkeley with Professor Edward Teller. The electronics industry had entered the world of solid state physics as the basis of the transistor and integrated circuit semiconductor business burgeoning in Silicon Valley down the San Francisco Peninsula in Palo Alto, Santa Clara and Sunnyvale.

The premise of relativity theory dictates that measurements, and even the interaction of an observer, changes the thing you're trying to measure or observe. Reality, it turns out, is not at all what everyone had supposed it to be as described by classical Newtonian physics. David Lindley, who did research in cosmology and particle physics at Cambridge and Fermilab near Chicago, has written that the uncertainty principle implicit in quantum theory, which Einstein never liked, says you can't always get what you want—a phrase made popular by Mick Jagger of The Rolling Stones, who had a different view of reality than most of us. The uncertainty principle applies not only to the limits of our knowledge about the Universe and women but also, I have observed, to our knowledge about Port Chicago. We can ask questions about that reality and try to get at the truth, but we may not be entitled to unequivocal answers.

Opportunities for investigative reporting with *Electronics* magazine were few but by early July 1968 I had written, and the magazine had published, a comprehensive article I had done that detailed the critical need to achieve radiation resistance for integrated circuits used by the Atomic Energy Commission and other high-reliability programs underwritten by the Government. The Navy, for example, wanted chips to be used in the guidance circuits of the fleet ballistic missiles Polaris and Poseidon, circuits that would have 100 per cent reliability or a failure rate less than 1 per cent after final acceptance testing had excluded 9,500 chips from every 10,000 that were purchased. Those circuits would be required to operate with that reliability in space in the Van Allen radiation belts, in an environment contaminated by a nuclear explosion, or near a nuclear reactor, or source of isotope radiation.

Apollo and Minuteman missiles were subject to the same need for high reliability, radiation hardened circuits. Until that time post-irradiation specifications for critical-mission circuits had been subject to negotiation and done on a "best effort" basis but Government policy had become specific to the point that radiation tolerance wasn't any longer open to negotiation. Government-specified post-irradiation operating characteristics were required to be met and only those suppliers that could manufacture to those requirements would stay alive in the market.

Certain variables could be controlled in manufacture at the "wafer" stage to enhance radiation tolerance: voltage requirements needed be minimized; dielectric isolation needed to be used to control spontaneous generation of photocurrents; and supply currents needed to be limited by using thin-film resistors in collector legs. Not all firms that had been chip suppliers to the Government missile programs could compete. The cost of research and development necessary to achieve the new and ever tightening radiation hardening specifications, for those must lucrative defense applications markets, could only be met by the larger companies and those that received favored-supplier contracts from the Albuquerque, New Mexico, U.S. Department of Energy Sandia Corporation that provided technology to those companies, technology that had been developed by Sandia's in-house circuit designers. Under the old rules vendors might have supplied one or two

out of perhaps 25 to 30 semiconductors for a specific project, but under the new rules a single firm would supply most or all the integrated circuits or discrete components necessary to one high-reliability program. Many small firms were sunk by the industry giants Fairchild Semiconductor and Motorola; even Raytheon Semiconductor was frozen out.

I was surprised and pleased when we in the San Francisco bureau received our copies of that issue of the magazine from New York to find I had been promoted from assistant editor to San Francisco regional editor. The San Francisco area was the world hub of the new electronics. Shortly after that article was published I was invited to visit the magazine's Manhattan editorial offices. The managing editor shook my hand, reached for his wallet, gave me a \$20 bill, and told me to get my long hair cut before we had lunch with the publisher at noon. I complied. I had sometimes experienced a considerable wait while my bona fides were checked when I presented myself to the front desk security at Fairchild and other of the military contractor firms I needed to deal with in the course of my employment with the magazine.

I become a novelist.

In spring 1969 I retired from McGraw-Hill, with some capital appreciation derived from electronics firms' initial stock offerings I had purchased, and my wife and I drove east to rural northern Vermont where I began work on the Great American Novel, *A Voyage in Search of a Soul*. When she became pregnant we moved to a small apartment in Washington, DC, on Capitol Hill a few blocks from the House of Representatives and Senate. There I continued the novel, which I finished in spring 1971 in a small rented house that we and our infant son occupied on a cliff 200 feet above the Pacific Ocean at Elk in Mendocino County, California. Through a connection facilitated by my mother-in-law, the daughter of the psychologist and philosopher Otto Rank (1884-1939), I submitted the completed novel to Robert Cornfield, then senior editor at The Dial Press. Although he declined the book what he wrote to me on 12 April 1971 greatly encouraged my work as a writer.

"In some ways, the book dissatisfies me, but first I want to say a bit about what I admire, for the faults are only those of this particular book, while your successes are obviously those of your gifts and talents and they'll be with you in all your writing. First, there is the calm, measured, literate style. A real ability to deal with the functions of written language. You can play, parody, relax, switch modes, deal with the ineffable without posturing or seeming pretentious. If you don't think that a rare gift, I'll punish you by making you spend a day reading manuscripts here. Also, you have managed a tangible, smelling, seen world—one I've never met before but which after reading you I'd be able to recognize. You have managed to become distinctive and idiosyncratic and convincing."

The reasons editor Cornfield declined the book were also well explained: "The book moves so poetically that the secret of the form remains too closed. The narrative isn't clear; the fractioning is finally disruptive. It might have been better if you had forced a clear form on the book. I think the metaphor isn't aid enough. I know I am suggesting a more conventional manner, but I think the meditative way of the book needs that sort of frame. The patience you demand is a right price for the reward, and, to continue at great strain the metaphor, I'd like the marketplace and terms clearer."

I am charged with felonious assault.

Three months later I was in a San Francisco County jail cell charged with one count felonious assault on a police officer engaged in the performance of his duty; one count felonious assault on a police officer engaged in the performance of his duty, with a deadly weapon; one count inciting to riot; one count disturbing the peace. In the narrative of that arrest that I published the following December in the short-lived weekly newspaper of the City, the *San Francisco Fault*, I created the tangible, smelling, seen world I had experienced which few of the City's residents would recognize and most would never know but for my telling of it:

"Jail is a refuge and you want to forget, but there is no drug, no nightingale to lull you to a drowsy numbness, no narcotic to drink and

leave the world unseen. No way to fade far away, dissolve and forget. You're at the epicenter of the evil perpetrated by men upon men; you're at the heart of darkness. There's a black man in your cell block. A big, muscular man, dripping from fever, without a shirt, who, with his hand in his pants paces his cell like a leopard, talking incoherently hour after hour as he masturbates. When the doors to the cell block are locked for the night, he puts up the second mattress in his cell so that he cannot be seen lying in his bunk, and for two hours he screams and moans until he vomits. He's charged with homicide."

The conditions of my no-contest plea to charges of trespass and resisting arrest following the Berkeley Free Speech Movement Sproul Hall sit-in specified a one year non-supervised probation; had I been arrested on any criminal charge during that year, it was six months in the Alameda County slammer, so I stayed well back of the front lines at protest demonstrations that year. This time I had stayed back from the front lines in a protest demonstration at San Francisco City Hall, but when the violence unexpectedly erupted well in front of me I was swept into the melee by a contingent of San Francisco police that moved in to rescue one of their own who had become isolated and taken down—a particularly distressing situation because the young Maoists who had taken the officer down had also taken his badge, neither of which was a good thing to do.

I was looking at the possibility of 20 years in prison if convicted of those felonies. I hadn't injured the policeman I was charged with assaulting, but that was only good fortune—his and mine. Another second and I would have been in abysmal trouble, but in that second I received a stunning police baton blow to the head from behind and my purpose was—I say by the grace of God—checked. A year later all the charges were dropped when I agreed not to sue the City and County of San Francisco for the wrong of the severe and very brutal beating I took intermittently during a slow drive in a police cruiser through the City's back alleys from the time my head wound was treated at the county hospital until I was booked one hour later. Every detail of the stops we made where violence was done to me in those alleys, out of the public eye, I reproduced in prose for the readers of the *San Francisco Fault*; it was a tangible, smelling world often alleged but

seldom seen until small video camera-recorders brought examples of that violence to witnesses in every home.

San Francisco to Santa Fe.

The next six years, until summer 1978, were difficult and pleasant. I earned most of a living for my family scraping and painting the exterior of San Francisco Victorian houses to which was added the income of commercial assignments in theatrical photography and photographic assignments of four somewhat regular clients, the Bank of America and Crowley Maritime Corporation, High Times and Head magazines. In the early 1970s I had followed a suggestion that Sasha Shulgin made that I research the life and writing of the mid-19th century American author Fitz Hugh Ludlow, best known today for his first book that has been continuously in print since 1857, The Hasheesh Eater. Excerpts of the completed biography were published in the Berkeley Barb and other magazines but I was unable to find a publisher for the whole work, which finally evolved to an adventure novel for adolescent boys, *Muscarine*, completed in 1989. The seven years research I had done for the Ludlow biography and bibliography had taken me to several dozen research libraries from the San Francisco Historical Society to Harvard University and many private and institutional libraries between the coasts. I had experienced the enjoyments and thrills of historical research, learned how to find what I wanted, and I had acquired a particularly useful skill that enabled me to read an entire document page or microfilm screen in a single glance.

In summer 1978 I moved the family to Santa Fe, New Mexico. Santa Fe is 7,000 feet above sea level. The first winter there I worked outdoors at the Santa Fe ski basin at 10,000 feet operating the facility's main chairlift—an outdoors winter spent hefting significantly overweight Texans, on skis for the first or second time in their lives, into precarious seats on a mile-long moving machine that had a notorious tendency to eat Texans. The following summer I took work as the custom color photographic printer in the local and very fine shop that served the large amateur and professional community of photographers in Santa Fe, The Darkroom; and I took my place among that community of photographic artists in frequent exhibits of my Eastman Kodak

Dye Transfer prints in joint shows with long-time Santa Fe resident Eliot Porter, the great master of the dye transfer print, and his assistant Jim Bones. But more substantial earnings were required than the artist's endeavor provided.

My next door neighbor, a divisional administrator in state government's Energy and Minerals Department, told me her department was looking for a scientific and technical editor to administer the state's energy research and development programs. I was very fortunate that my demonstrated competence as a scientific and technical editor and writer, and my record of productive interactions with scientists, engineers and high-level business people found favor with the Research and Development Division of the New Mexico Energy and Minerals Department in Santa Fe, where I was hired in late summer 1979 to sort out and coordinate the state's multi-discipline energy research and development program administered by that department.

Those programs then received state appropriations of \$5 million annually and comparable matching Federal and industry funds. The research and development funds administered by the Energy and Minerals Department provided research support mostly to academic researchers at the state's universities and colleges; in consequence I quickly became acquainted with most of the professors of the physical sciences at The University of New Mexico in Albuquerque, New Mexico State University at Las Cruces, the New Mexico Solar Energy Research Institute at Las Cruces, New Mexico Institute of Mining and Technology at Socorro and that Institute's Petroleum Recovery and Research Center. A fair number of those men who received research funding from the Energy and Minerals Department fund had been Manhattan Project scientists at Los Alamos during the war and had taken academic positions in the state after the war.

During the decade of the 1970s funds flowed to the New Mexico state government at record levels, principally from severance taxes the state collected from oil and gas producers, the state's coal mining industry and, very importantly, from the state's uranium mining and ore processing industry. The year 1978 was the peak of the post-war uranium mining boom in New Mexico, driven by the bloom of nuclear

power plants in construction and planned across the country. New Mexico produced 8,539 tons of uranium concentrate in 1978 with a market value of \$370 million. That production represented 46 percent of the total U.S. production of uranium concentrate, known as yellow cake. The accumulation of money in the state's reserved Severance Tax Income Fund from all the state's energy and mineral extraction industries during the period of high energy prices during the 1970s was then well over two billion dollars. But in 1979 most forecasters in the state's energy sector anticipated an impending oil glut and also anticipated that uranium purchases by the nuclear power industry would soon collapse.

The uranium market was saturated and could be supplied for years from utility companies' inventories that had been amassed during a long post-war period of Government subsidy for the uranium mining industry and the uranium enrichment process at Oak Ridge, Tennessee. Government industry subsidies produced uranium enriched for utility purposes at such low cost that it was essentially a giveaway program to the nuclear power utilities. Even if nuclear power plant construction continued its then roaring bonanza, any rational forecast expected utility uranium purchases to radically decline. Canada and Australia were entering the uranium mining and milling market with better ore and lower productions costs, so it was clear to analysts that the New Mexico uranium industry was headed for collapse, which it shortly did. In 1986 the New Mexico uranium industry paid excise and severance taxes of \$2.2 million and produced only 6 percent of the total U.S. production of uranium concentrate.

With the expectation in late 1979 that cheap oil would soon become abundantly available from Organization of Petroleum Exporting Countries (OPEC) the fiscal future of the State of New Mexico was readily perceived and understood. The comparatively high-priced oil and gas produced in the U.S. generally, and New Mexico particularly, would be driven out of the market. The state's income from severance taxes on oil and gas production would nosedive; combined with the loss of uranium severance taxes expected to result from abatement of utility purchases of New Mexico uranium, the state government faced an impending fiscal calamity.

New Mexico state government had been financed in large measure for decades by severance tax revenues from oil, gas, coal, and uranium production. Of those revenues during the 10 years prior to 1979 the legislature had generously appropriated monies from the General Fund and Severance Tax Income Fund for the wide range of energy research and development studies administered by the state Energy and Minerals Department. In total some \$20 million had been appropriated by the state for that program's purposes. In addition to budget funds awarded to specific research projects an appropriate percentage of the project grant was added to cover overhead expenses at the schools where the research was conducted. Including matching Federal government and industry funds, some less than \$40 million had been made available to the state research program with the result that more than 350 research projects had been completed or were ongoing in autumn 1979.

However, in recognition of an impending fiscal crisis, state legislators began to look at the expenses of that program more critically and asked if there had been any projects funded that had any practical application to enhancement of the value of the state's energy resources, their development, production and marketing. Legislators who asked questions about the program found that the organization of the program over the years hadn't provided any ready inventory of the 350 projects that had been funded, what those projects had proposed or what had been accomplished. The Energy and Minerals Department needed someone, at a moderate salary level, with adequate scientific and technical competence to organize and analyze the program project files, to discover if anything of practical value had been accomplished, and to respond to the legislature's request for a detailed report of the overall history of the program, its costs and benefits.

A few examples of the research funded by the state's program will give a sense of the complexity of most of the project studies: "Methane production from carbon oxides over borohydride-reduced transition metals," "Engineering methods for predicting productivity and longevity of hot-dry-rock geothermal energy reservoirs in the presence of thermal cracks," "Relationship of pore structure to fluid behavior in low permeability gas sands," "Extraction of radionuclides from low-

grade ores and mill tailings," "A roof type solar distillation plant for the Lake Valley Chapter of the Navajo Indian Reservation in New Mexico," "The effect of carbon dioxide on the phase behavior and viscosity of coal liquids." The research program funded work in all subjects of energy research and development: oil (especially enhanced oil recovery technologies), natural gas, coal, the nuclear fuel cycle, geothermal, hydropower, wind, solar, synthetic fuels, biomass, waste conversion, energy conservation, the energy requirements of agriculture, general study of the socioeconomics of energy production and use; the program also created and funded a wide variety of energy information literature and community awareness programs to benefit the state's residential and business consumers.

By the beginning of 1980 I completed a comprehensive report and analysis of the 350 projects that had been and currently were funded by the program. The Secretary of the Energy and Minerals Department transmitted the report to Governor Bruce King; the governor approved the report and sent it to the legislature with his recommendation, endorsed by the energy secretary, that an institute administratively attached to but separate from the Energy and Minerals Department should be established to administer the research program. A few months later the legislature enacted the proposal and the New Mexico Energy Research and Development Institute (NMERDI) was established, on paper, in Santa Fe. I very much objected to adoption and use of the Institute's acronym. Spanish, old Castilian Spanish, and modern "Spanglish" compete with English as the dominant language spoken in northern New Mexico, but a French cultural influence and a significant French community have been remarkable in Santa Fe since 1850 when the Roman Catholic Diocese of Santa Fe was created and Jean Baptist Lamy received Papal appointment as the first Bishop of Santa Fe and later, in 1875, Archbishop of New Mexico and Arizona. Two famous books keep Lamy's memory alive. One is Willa Cather's superb historical novel Death Comes for the Archbishop, first published in 1927. The other is Paul Horgan's 1975 Pulitzer Prize-winning biography, Lamy of Santa Fe. There is a French consulate and a French community in present Santa Fe. Merde is the French colloquial word that translates to English as "shit," and I was concerned the Institute's

acronym, NMERDI, looked too much to French speakers in Santa Fe as a curious acronym for a New Shitty Institute.

The enactment that created NMERDI included an appropriation of \$5 million to design and construct the modest office building we thought appropriate to the undertaking; \$500,000 to purchase a Beechcraft Queenair turboprop "mini-airliner," principally for the governor's use, but with the Governor's pilot available for NMERDI transportation requirements; an initial appropriation of \$5 million to fund new and continuing projects close to the commercialization stage with the goal of economic development; and the legislature provided a generous operating budget for the new Institute. I was appointed by Governor King to implement establishment of the Institute. It was at that juncture in spring 1980 that I recovered the "History of 10,000 ton gadget" which Paul Masters 35 years earlier had purloined from Los Alamos Laboratories.