

Gene Mallove: From Before Cold Fusion Through Tragedy

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Recalling Gene's life is a difficult task for me because we were friends since the mid-1960s. Gene was my closest friend from the MIT class of 1969. We both majored in aeronautics and astronautics and took many of the same classes, wherein Gene seemed to always do a bit better while still finding time to do other things.

Among those other things was the student-run MIT Rocket Research Society. Gene belonged all four years, serving as president the last two. Whether MIT, or any school nowadays, would currently let students build and operate amateur rockets, both solid and liquid-fueled, is an interesting question but at the time it was great fun.

During our senior year, we joined others in a graduate level course which included a trip to Cape Kennedy to watch the Apollo 10 launch. We were all permitted to go, perhaps, a thousand feet closer than the viewing stands and I'll never forget the powerful, infrasonic sound field. Gene, however, was not with me at that moment.

In typical Mallove style, Gene had convinced a perimeter guard that he was a personal friend of Dr. Wernher Von Braun and that he had permission to go another 1,000 feet forward. It was from that location that he took some photos and sound recordings.

In addition, we had a nice tour of the facilities and I also remember walking on the beach with Gene. After a quick dip in the ocean, I remarked to Gene how different the world was there than at MIT. Gene was thinking backward in time, commenting on how the area must have been in the age of sailing ships and Caribbean pirates.

After graduation we each went separate ways for a few years and I remember seeing him at class reunions. It was in the late 1970s, or very early 1980s, that Gene exclaimed that he wanted to write about a number of topics but, unfortunately, had no writing experience.

One of the standing jokes at MIT is that the students can write if they really have to, but they prefer to just carry on a peaceful coexistence with the English language.

I commented to him: How hard can it be to write? While we didn't get 800's on our SAT verbal tests, we did do very well and it must be possible to write and do it quite effectively. I definitely encouraged Gene to do some writing and he ended up eventually doing entire books while I only pen short science fiction stories as a hobby.

One of the many sad aspects of Gene's death is that a couple of months earlier I had mailed him the best science fiction story, by far, that I had ever written and, in a phone call



Dean and Gene at a Hawaiian volcano in 1993.

a few weeks before his death, he said that he would read it and we could discuss it at the forthcoming class reunion.

Now, I guess, I'll never know if he read it or not. I suspect that he didn't since he was so incredibly busy and he would have probably waited until closer to the last minute.

I had outlined a science fiction novel many years ago and reviewed some of it with Gene. We had an agreement to collaborate on it at some future date when I was retired and he could find the time to help some. The novel has a unique plot and Gene and I were thinking TV and movie rights which could eventually fund more cold fusion work. Yet another project that Gene wanted to do in the years to come.

If I ever finish the novel, I'll dedicate it to Gene.

In 1993 I attended the fourth cold fusion conference (ICCF4) on Maui with Gene. One of my relatives had gotten us a fabulous condo for the week; we each had our own large rooms plus an additional magnificent room in case a certain very famous person decided to attend. Although they didn't show up, it was still an incredibly exciting week anyway and it definitely confirmed my suspicion that cold fusion was a real phenomena.

Among the many events that I remember was Gene's comment as we walked down to the beach one day. Prof. Martin Fleischmann was walking out in the water and Gene turned to me and said: "Look, Dr. Fleischmann is swimming in the fuel tank!"

Another interesting experience happened at the end of the conference. I had a rental car and that day I decided to drive to the top of the volcano and look it over. Gene had

things to do but he managed to join me at the last moment, still wearing a full suit. The suit was needed for one of his duties but he was not comfortable in it.

When we got to the volcano, it was so intriguing that we decided to join some others, including Prof. Stringham, on a brief hike down one of the many trails. Gene's suit got slightly sandy but, even worse, he was too hot and the elevation (10,000 feet) bothered him a little bit. A group of hikers passed us going the opposite direction and one of them commented that Gene must be an attorney, dressed as he was. We all laughed and Gene gave the fellow a cold fusion business card.

The most important aspect of my memories of Gene, however, is his legacy of thoughts regarding the scientific method.

Gene's rule number one was that experimental data trumped theory. While it's probably true that the theorists are often smarter than the experimentalists and that the theorists are more likely to be found walking onto the stage in Stockholm to pick up their Nobel prizes, a flawless experiment can totally demolish a brilliant theory.

Somehow, science has gotten off course and data in any field that causes trouble for the current theories is often rejected. This circumstance must change if progress is to move at a faster pace.

Another of Gene's guiding principles was that new ideas deserved a thorough and impartial evaluation. Although a fair amount of review went into the articles Gene published, I believe that he did not consider some of them to be true or ever likely to be found to be true.

Nevertheless, he believed that a forum like *Infinite Energy* magazine was needed precisely because no one could determine at the outset the ultimate truth or utility of a new idea. A good chunk of the existing scientific literature is bogged down in trivial updates to established principles with new ideas not a big player, yet another circumstance begging for revision.

Gene's personal integrity was a stellar example of how science should operate. Unfortunately, here is an area also ripe for reform. Commercial interests, academic conflicts, personal ego, and bias all stand in the way of truth and progress suffers for it. While these problems can never be eliminated, the world must do better and Gene's life shows as an example how exemplary one person's integrity can be as an inspiration to all others.

The final legacy we collect from Gene is passion about one's work. A brief perusal of historic inventions and discoveries shows that passion is often the crucial ingredient and that a nine to five workday of meeting other peoples' goals is not enough. All it takes to change the world is one passionate person. When the dust ultimately settles on the cold fusion debate, Gene will stand out as the one person on the planet who did the most to point everyone in the right direction. Although he did not discover cold fusion, Gene will be remembered simply because he saw the truth and acted passionately upon it.

Between the time demands of the undergraduates' endless required courses on partial differential equations III, second term wave mechanics, and so forth, there is little or no room for a class discussing the history of science, the scientific method, or great mistakes from the past. Gene's life reveals what a struggle it is to try to remedy that oversight.

Well, I've come to the end of some of my many memories of Gene and it's been so hard to write this story down. Unfortunately, when creating an electronic file, there's no chance of tears staining the paper. As my wife Kathy lamented: "I wish that we could have seen him one more time." My deepest sympathy goes out to Joanne and the children over this devastating loss.

I'll never forget Gene and thoughts of him will be renewed every time a new piece of life's puzzles falls in place and I am reminded of something innovative that Gene missed due to a life cut tragically short.

In closing, it seems appropriate to underscore Gene's perennial optimism with an Edward Young quote that he used in *The Starflight Handbook*: "Too low they build, who build beneath the stars."