

**Preface to a Memorial Volume Dedicated to Professor Jin-Quan Chen,
Professor of Physics, Nanjing University
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My friend Professor Jin-Quan Chen, a world-renowned mathematical physicist, departed from this earth, sadly, in 1999. This scientific volume, contributed by many of his friends and colleagues, is published in his memory.

Professor Chen's life mirrors a generation of Chinese intellectuals. It was profoundly sad, yet exhilarating.

1976 was a defining year for modern China. Chairman Mao died on Sept. 9 that year, followed immediately by the spectacular collapse of the so-called "Gang of Four," thus bringing closure to ten painful years of "Cultural Revolutions," and ushered China into a new era. Someday, historians will undoubtedly consider the new era as the "miracle of the world in the 20th century."

In 1976, after a decade of utter devastation, China was at the verge of a complete meltdown - economically, technologically and intellectually. Having a quarter of the humanity on the planet, and a land size spanning nearly half of Asia, such a meltdown would have horrifying global implications!

Yet, no meltdown occurred.

A fundamental reason why there was no meltdown was because of the Herculean contributions of the tens of millions of Chinese intellectuals. In their darkest hours during that era, enduring the hardest of hardships and suffering the deepest personal humiliations, they always maintained palpable hope for themselves, their family, their professions and their nation. Indeed, even without personal liberty, both physically and mentally, they remained important pillars of the nation, holding up its dignity. The successes of China of the 21st century are in no small part due to this group of individuals.

This is the joyous and sad story of one of them, our friend Professor Chen Jin-Quan.

In 1977, as a young Chinese American Assistant Professor of Physics in Philadelphia, I was profoundly curious about the state of China in general and the state of its science in particular. I wanted to initiate scientific relations and collaborations with colleagues in China. Since I knew virtually no one in China, certainly none in my research area, there was no direct and efficient way for me to establish the necessary connection.

Serendipitously, that fall, I invited one of the most well-respected Chinese American physicists and Nobel Laureates, Chen-Ning Yang, to deliver a "Distinguished Lecture" in Philadelphia. Yang delivered a beautiful lecture, understandable even by lay people, on some of the deepest issues of unifying forces in nature. As a habit, a colleague and I transcribed the lecture. Knowing that Yang was, and still is, a household name in China, I thought the best way to cast a wide net to make contact with colleagues in China was to send this transcription to the libraries of major universities, hoping someone would notice it and respond to me. Nanjing University was one of the universities I sent the document.

Months went by. There was no response. Finally one (and only one) came, and it was from Professor Chen Jin-Quan. In a style that I became deeply familiar with in the next twenty years, Jin-Quan wrote to me in perfect English, and profound reverence. From the few words I added in the transcription about myself, he was able to extrapolate, albeit roughly, my research interest. With great dignity and in no uncertain terms, he expressed a strong desire to communicate with me on scientific matters. This was the beginning of our long association.

In hindsight, this letter from Professor Chen to me was written with great courage.

Why was courage necessary? Well, if one considers for a moment China's predicament at the time, it was understandable. After all, China just emerged from a period of extreme political turmoil and control. For ten years, intellectuals were brutalized. Therefore, even though there was an official declaration of the ending of the era, the nation was still in a state of

"xin you yu ji"
(the heart still fills with legacy fear!)

And fear there was! Indeed, there was no guarantee that China would not reverse back to its dark age at any time. With that as background, it is not difficult to imagine that supreme courage was necessary for Chen to write to me.

Chinese intellectuals never allowed their minds to cease functioning during those ten terrible years. Nearly every one of the thousands I came to know had an extremely interesting and heart-warming story to tell about the way s/he remained intellectually alert. Chen was no exception.

I think the following story about Chen was worth telling.

Chen had a great capacity for memorization. He used it effectively during those ten years. When he was sent to the countryside, to be "re-educated" as a peasant, he brought with him two books: an English-Chinese dictionary, and an English translation of Leo Tolstoy's "War and Peace." During those years, every night, he studied and memorized several words from the dictionary, and read the novel over and over, until he virtually

memorized it. This was how he became perfect in the usage of the English language, and how he possessed an inexhaustible vocabulary.

In a sense, writing to me was perhaps Chen's way to "cast his net" to the outside world. In hindsight, this response marked a watershed in my contacts and friendship with literally thousands of individuals in China for the next quarter of a century. In a style that I became quite familiar within the next quarter of a century, I was consumed by his letter and responded quickly and positively to Chen, thus initiating a scientific collaboration which lasted nearly two decades. I guess you might say that it was indeed, in modern terms, a win-win situation!

As I have indicated earlier, Chen's courage was not in the least unusual. In fact, tens of thousands of Chinese intellectuals did something similar, and within a decade, the world outside of China was filled with Chinese intellectuals as visiting scholars, bettering themselves in all areas of intellectual pursuits. And within the next twenty years, a large percentage of this group made their way back to China.

Many are now the pillars of modern China.

With China's rapidly growing importance on the global landscape, and thus must be a major factor in world peace, one cannot underscore the important contributions of this group of intellectuals in the 21st century!