

## Saying farewell to Qian Xuesen, father of our space program



John Gong

THE heavy yet beautiful snow in Beijing on Sunday was clearly tears from "above" to lament the passing of one man whose legacy is treasured with awe in China and can be felt in the US and many other parts of the world.

At age 98, Dr Qian Xuesen passed away peacefully in a hospital in Beijing this past Saturday. The trajectory of Qian's life encompasses both continents across the Pacific.

In 1935, he went to MIT on a scholarship and a year later transferred to Caltech (Pasadena, California) to pursue doctoral study with Theodore von Karman, the prominent aviation pioneer at the time.

It was shortly after arriving at Caltech that Qian was attracted to the rocketry ideas of Frank Malina and a few other students of von Karman and their associates.

While Malina, Jack Parson and et al are hands-on experimenters, Qian played the role of a theorist, providing many insightful calculations that were vital in setting the directions of the project.

Around Caltech the dangerous and explosive nature of their work earned them the nickname "Suicide Squad."

The story of the early days of rocket invention at Caltech was later documented in detail in Iris Chang's biography of Qian, "Trace of Silkworm."

Qian was not only a gifted scientist, but also a perfectionist scientist. One event speaks volumes about his research attitude.

Among Qian's academic publications in the US was a joint paper with von Karman, titled "The Buckling of Thin Cylindrical Shells Under Axial Compression," published in the Journal of Aeronaut Science in 1941.

The 10-page paper, mainly done by Qian, had over 800 pages of drafts in five different versions behind it. Each draft version has entirely different content and sometimes different analytical results.

By the time Qian finished the fifth version, he put the paper into a folder on which he wrote "final." Then he immediately added on the side "Nothing is final!"

After Germany surrendered in World War II, the US Army gave Qian the rank of Colonel. Qian was founding director of the world-famous Jet Propulsion Lab (JPL) at Caltech, and performed many important missile projects for the US military.

Qian was persecuted at the height of the McCarthy era. But the Caltech president Lee DuBridge and Qian's colleagues firmly stood behind him, and he continued to do research there, mainly in control theory after he lost his security clearance.

In fact, the university gave him its distinguished alumni award in 1979 in recognition of his pioneering work in rocket science.

### Home sweet home

On a rainy and windy day in southern California in 1955, Qian bid farewell to the US together with his wife and two children on board a ship heading for Hong Kong.

And the rest is history, for China. That latter part of his life on the other side of the Pacific shines even more. Qian was the father of China's space and missile programs.

Qian is survived by his wife, Jiang Ying. Jiang Ying, who married him in 1947, is a famed opera singer.

According to Iris Chang's book, Qian shared with Jiang Ying so much of the same love of opera that they would sometimes rest quietly, immersed in the music for hours in their modest apartment in Beijing in the 60s and 70s.

As an enthusiast of the same music genre, I would dedicate one song in honor of Qian. The song, "I will pray for you," is from Katherine Jenkins' album "Rejoice," including one paragraph that I note:

*When your time is through  
My final wish for you  
Is to count your blessings  
not your regrets  
With peace inside your soul  
And all that heaven holds  
I hope you always know  
I will pray for you.*

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# Toyotism or unionism: US workers try Japan

Terutomo Ozawa

US President Obama has been supporting a new bill, the Employee Free Choice Act, designed to promote labor unions' drive for unionization.

This bill, if enacted, will surely be a big boon for unions as it enhances their bargaining power vis-a-vis businesses.

An important issue here, however, is how such reinforced unionism contributes to the US' much-needed industrial competitiveness and employment — and, more specifically, how this new policy will affect the US as a host to FDI in the auto industry.

In 2008, GM yielded its world's top position to Toyota. Unfortunately, Detroit's woes have been caused in significant part by the ever-restrictive work rules and legacy costs (ie, generous wages and retirement and health care benefits) obtained by the United Auto Workers union.

For this, however, the UAW alone should not be blamed. It has been acting in its own interest within an institutional setup that was created by the National Labor Relations (Wagner) Act of 1935, a law that was legislated amid the Great Depression and in understandable sympathy with the plight of massive numbers of laid-off workers, the victims of then-unbridled capitalism.

US unionism was thus fostered by Congress as a way of giving workers countervailing power against "uncaring" management that considered them mere cogs in the machine.

Unfortunately, however, labor and management have ever since been trapped in a relationship that was inherently antagonistic and adversarial.

True, such unionism helped secure unprecedented benefits for tens of thousands of US workers — so long as Detroit enjoyed unchallenged competitiveness.

It was, however, not long before the rest of the industrialized world had caught up, altering the competitive environment. Most importantly, Fordism-cum-Taylorism came to be outcompeted by flexible production that was initiated by Toyota.

Auto FDI in the US (known as "transplants") is centered in non-unionized southern states. Foreign multinationals there can produce automobiles cost-effectively largely because of a flexible workplace that is unencumbered by restrictive union rules.

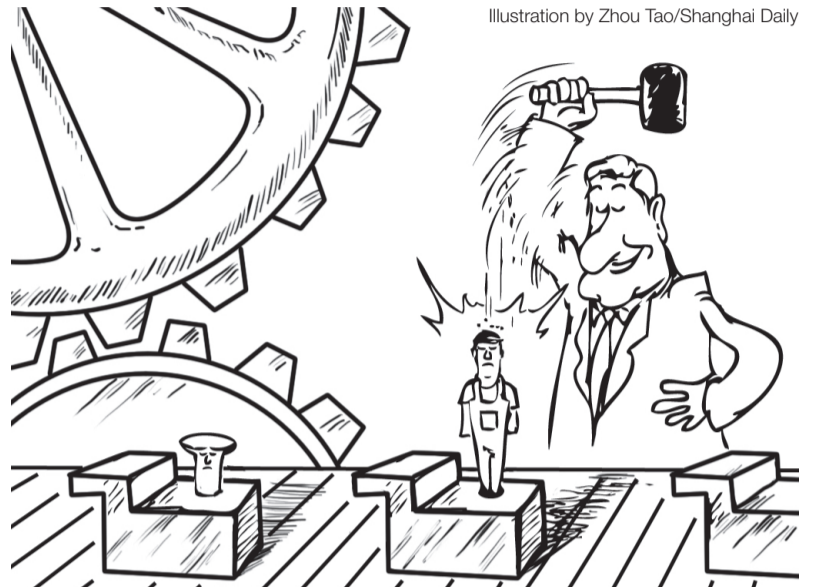


Illustration by Zhou Tao/Shanghai Daily

This is in sharp contrast to the status of workers as "brawn" workers who are assigned to simplified repetitive tasks in mass production (as satirized by Charlie Chaplin's "Modern Times").

Japanese transplants in particular thrive on Toyota-style management and production. They are known for their workplace "democratization" where the supervisory structure is flattened and where both management and workers share common facilities (such as parking lots, cafeterias, and rest rooms) and common activities (group calisthenics and recreation).

### Brain vs brawn

The pay/compensation gap between executives and the rank-and-file is much smaller than that in comparable US companies. Also, the transplants treat workers as "brain" workers who perform multi-tasks on a rotation basis to avoid monotonous single-task assignments.

This is in sharp contrast to the status of workers as "brawn" workers who are assigned to simplified repetitive tasks in mass production (as satirized by Charlie Chaplin's "Modern Times").

Moreover, the transplants minimize layoffs and furloughs during a downturn, retaining and retraining workers.

Some of these practices are emulated by US auto makers, but their management culture in general and the restrictive work rules in particular get in the way.

Flexible production is not intended to

exploit labor but to create a larger pie to share with workers. Wagner Act-enabled collective bargaining disregards the size of a pie, even if it shrinks because of workplace inflexibility and disruptive strikes.

The transplants pay higher compensation (about 20 percent more) than the national average — currently employing more than 400,000 Americans at the average annual pay of US\$63,538.

At least, southern members of Congress, governors, and mayors — and workers themselves — understand the benefits of flexible production and are eager to attract more auto FDI to create well-paid manufacturing jobs locally.

It is critical for law makers — and management, as well as labor — all to realize that the antagonistic mode of labor relations institutionalized by the Wagner Act is utterly outdated. A more cooperative relationship is called for.

**(The author is professor emeritus of economics, Colorado State University; research associate, Center on Japanese Economy and Business, Columbia Business School. The material is reprinted with permission from the Vale Columbia Center on Sustainable International Investment. www.vcc-columbia.edu. The views are his own.)**

## China-US military ties gain pace

Yang Qingchuan

GENERAL Xu Caihou, vice chairman of China's Central Military Commission, was in the spotlight when he visited the United States from October 24 to November 3.

He was the first senior Chinese military leader to visit the country since Barack Obama assumed the presidency in January. Essential background to the visit is the regained momentum in the military relationship since Chinese President Hu Jintao and President Obama reached a consensus in April in London to improve bilateral military ties.

On broader issues, Xu and his US

hosts agreed to further the two-way military relationship and cooperation in a stable and healthy way.

While hopeful of the prospects for China-US military ties, Xu expressed China's concerns about several major obstacles that may harm the relationship.

The first and foremost obstacle is the US-Taiwan military relationship. China maintains the United States should stick to the three China-US communiqués and gradually reduce its arms sale to Taiwan, aiming towards total termination.

Second, US military aircraft and ships' intrusions into China's maritime exclusive economic zone should be

terminated. Third, there is some US legislation that restricts the development of the China-US military relationship. Most notably is the 2,000 Defense Authorization Act passed in 1999.

Another obstacle is that the US lacks strategic trust in China. China hopes the US would look at China's military power development in a reasonable way, not to stir up the bogus "China Threat" theory.

Ted Galen Carpenter, vice president of the Cato institute in Washington, said Xu's visit is "an important step to rebuild" the military relationship.

**(The author is a Xinhua writer.)**

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