

# Deeper Cultural Value of Kung Fu

## Dialogue

By BI Weizi & LONG Yun

Laurence J. Brahm has many strings to his bow. The American is an international lawyer, author and award-winning documentary filmmaker, a senior international fellow at the Center for China and Globalization, founding director of the Himalayan Consensus Institute, and co-chair of the Silk Spice Road Dialogues convened by the United Nations Development Programme. In 2019, Brahm received the Chinese Government Friendship Award for his contributions to promoting traditional Chinese culture at global stage.

Recently, in an interview with *Science and Technology Daily* at his quadrangle courtyard in Beijing, Brahm shared his first-hand experience of China's rapid development and changes over the past four decades.

As a senior kung fu practitioner, he also expressed that kung fu is an efficient way to promote traditional Chinese culture across borders and build cultural confidence, so that China's ancient traditional culture can not only be shared with more Western readers but cultural barriers can also be broken and better communication achieved.

### Love for China started young

In June 1981, Brahm arrived in Tianjin, China, for the first time, before moving to Hong Kong to study law and Chinese language. In 1983, he came to Beijing and was appointed head of the China department of a British law firm at the age of 26.

Talking about his love for China, Brahm said he was very inspired by Nixon's visit to China in 1972. "[From] the first images we saw of China on our television set, the feeling I had was that this



Mr Laurence J. Brahm. (COURTESY PHOTO)

was a country that was about to open up and take its place in the world, and I wanted to be part of that process," he said.

Brahm also recalled his childhood in New York City, where he spent a lot of time in Chinatown and was impressed by Chinese kung fu and other aspects of Chinese culture.

### Kung fu diplomacy

In 1972, Ping-Pong Diplomacy opened the door for President Richard Nixon's visit to China and provided a blueprint for establishing diplomatic relations that was simple and straightforward at a time, when the world was becoming increasingly complicated.

Brahm suggested that Kung fu diplomacy, as a new kind of Ping-Pong Diplomacy in this era of global confusion, is "the fabric of people-to-people communication."

To reveal the essence behind Chinese kung fu, Brahm put his four decades of martial arts training experience in various styles, into directing a documentary film called *Searching for Kung Fu*, in an effort to explore the origins of martial arts.

"The journey through China's heritage of martial arts traditions led us to understand that it is not about fighting, but about striving, and that there are key values inherent in martial arts. These range from perseverance, loyalty, respect, roots and identity, harmony with nature, flow and, at the core of it all, non-violence," he said.

The values of kung fu should be recognized as universal values. "This is one of the things I have talked about extensively and openly expressed, that if you really want to influence the world,

you should introduce kung fu to a wider audience.

All the values that are in Chinese culture can be found in kung fu," he said, adding there is a growing number of people globally who want to learn more about kung fu as a way to improve themselves.

According to Brahm, more attention should be paid to introduce the philosophy behind kung fu to the world. "There are a lot of good fighting skills in Western countries, but it's the philosophy [of kung fu] that's so important. And from kung fu you can actually understand everything," he said.

That's why his team have dedicated themselves to promoting the importance of Chinese culture to more people, especially young people, around the world through books and movies.

# Feeling the Pulse of Anhui's Development

## China Impression

By Qin Shuying & Zang Weiwei

China's remarkable development over the decades has attracted foreign experts who have actively contributed to and witnessed the nation's growth. Three foreign experts in east China's Anhui province have shared their unique perspectives on China's development.

### BRI as a bridge

Abdulhamit, a Turkish citizen married to a Chinese woman from Tongling, a city in Anhui, has a Chinese name now, Wang Longli. This son-in-law of Anhui played an important role during the Anhui Blue Sky Rescue team's relief mission in Türkiye in February, after massive earthquakes struck central and southern parts of the country. He

served as the team's interpreter.

Wang, who came back to Tongling for his traditional Chinese wedding, shares his thoughts on China's remarkable development over the decades.

For Wang, the changes he has seen in Anhui's infrastructure are significant, particularly in transportation and mobile payment systems, which have made life more convenient and secure. He calls the transition from cash to mobile payments remarkable.

Wang, who considers China his second home and appreciates the Chinese culture and progress, also sees the Belt and Road Initiative (BRI) as a force that has transformed trade, lifestyles and people-to-people communication. Besides bringing economic benefits, he says the BRI fosters cultural exchanges.

### High-tech landscape

Hara Takuya, a Japanese expert specializing in the production of mask

blanks, an essential component for semiconductor chips, says Anhui stands out in the field of quantum science, an area that holds immense significance for the future. The province's display industry and robust supply chain further underscore its potential for growth.

Takuya also highlights the speed and dynamism of business in China. He says foreign companies have a strong presence in China and predicts continued investment due to the country's role in the development of the global economy. He also applauds China's approach to modernization, which respects its rich history while forging ahead into the future.

### Cultural richness

Natalia Deasy, an Indonesian teacher at Anhui's Hefei University of Technology, remarks on the rapid development of Hefei, the provincial capital, particularly in transportation, which has made daily life more convenient. To her,

the unique phenomenon of people, especially elders, dancing and enjoying outdoor activities is an important sign of China's vibrant culture.

She finds the Chinese warm, helpful and accommodating to foreigners and is impressed by the authentic flavors offered by the many foreign restaurants.

Her appreciation extends to China's cultural heritage and natural wonders, with Mount Huangshan, described as "the loveliest mountain of China" and lauded in art and literature, being a highlight.

Deasy regards China's modernization as beneficial to others, fostering strong international relationships and mutual support.

This article is based on a report by *Anhui News English*, *Anhui New Media Group*.

# Unveiling Earthquake Mysteries

## Science Outreach

By LONG Yun & BI Weizi

In today's world, the word "earthquake" has become increasingly common in conversations and news headlines.

French/Belgian geoscientist Marie Luce Chevalier from the Institute of Geology under the Chinese Academy of Geological Sciences, gave profound insights into the fascinating world of earthquakes in a recent interview with *Science and Technology Daily*.

### Earth's emotional release: earthquakes

"Earth, much like us humans, has its way of expressing stress and energy," said Chevalier, adding that the earth releases its "emotion" through motion. Astonishingly, around 80 percent of the world's earthquakes occur along the margins of the Pacific Plate. This region is known as the "Ring of Fire" due to the numerous active volcanoes lining its boundaries.

However, earthquakes can also originate within a tectonic plate, as exemplified by the Qinghai-Tibetan Plateau, where the collision between the Indian and Asian plates unfolded around 55 million years ago.

### The puzzle of earthquake patterns

According to Chevalier, there isn't

a straightforward pattern governing earthquake occurrences globally. However, along specific fault lines, such as the San Andreas fault in California, U.S., earthquakes tend to recur at somewhat regular intervals of approximately 150 years.

Predicting earthquakes remains elusive. The science of earthquake prediction is far from exact, and the precise timing and location of the next earthquake remain uncertain. Still, science provides us with hope. Today, scientists can estimate their frequency, magnitude, and surface rupture length through research or fieldwork.

### The complex interplay between earthquakes and weather

The relationship between earth-

quakes and weather causes short-term and long-term effects.

In the long run, over geological timescales, repeated earthquakes can modify regional topography, giving rise to mountain ranges or rift valleys. Such changes can disrupt climatic patterns, affecting weather systems like monsoons and westerlies. Also, landslides triggered by earthquakes can further alter river courses, sometimes leading to catastrophic floods downstream.

As to the short-term effect, the sudden release of underground energy raises surface temperatures during an earthquake. This, in turn, causes surface water to evaporate, increasing atmospheric water vapor and potentially facilitating rainfall.

## Letter to the Editor

# The Nobel Laureate Who Almost Wasn't

By Nathan E. Stott

Despite the implication of the title, I believed from the time Professor Mounji G. Bawendi was my PhD advisor that he was destined to become a Nobel Laureate. I never doubted it. Recently, I even suspected that 2023 would be his year and had been awaiting the announcement of the prize for chemistry since the day before.

Mounji has a very quiet, reserved, soft-spoken, and easy-going personality. He is an amazing teacher who provides clear insight in such a manner that the brains of his audience and students will readily absorb whatever he is instructing. He is very creative and excited about science and technology, and his enthusiasm is contagious to all of his students and postdoctoral researchers.

I have an amusing anecdote that I would like to share, and I hope it is well-received in the spirit in which I intend it. It's a fond and endearing memory for me of my mentor.

One time, in the laboratory and while standing in front of a fume hood, Mounji told me and another graduate student a personal story, a rare occasion when he opened up about his life. When he was an undergraduate at the school down the street (what we at MIT humorously and slightly derisively, tongue-in-cheek, call Harvard University), he was also an undergraduate researcher.

One time, he was working at the fume hood and had a jar with pieces of sodium metal in mineral oil. He decided to toss some tiny pieces of sodium metal, using a little lab spatula, into a sink with some water in it at the back of the fume hood, and this made some of what he found to be interesting pops and sparks from the sodium metal reacting with the water.

Then, he became more curious and wanted to see what happens when tossing a larger chunk of sodium metal into the water in the sink at the back of the fume hood... BOOM!!! A big fire ball exploded inside the fume hood and went up the ventilation shaft, knocking out the exhaust fan! Mounji closed the sash of the fume hood and promptly walked away.

Mounji was softly chuckling and smiling while telling us this story as both my and my colleague's jaws dropped. Then, he told us never to do that ourselves and to always be safe in the laboratory. I noted to him that he might never have become a professor at MIT if he had been caught in such mischief as a student. He grinned.

The reason this story is so funny is because Mounji is a very quiet and reserved man. While an American, he is also a very proper French gentleman. Our shock and surprise delighted him.

It is with this same curiosity of that mischievous young man that Mounji continued to more seriously and soberly approach science and technology to lead his research group to many great discoveries and achievements about quantum dots (QDs). Isn't it also fitting that he won the prize from the inventor of dynamite?

Congratulations, Mounji! We are all immensely proud to have been taught and mentored by you.

Professor Nathan E. Stott serves as the team leader of Nanomaterials for Electronic and Renewable Devices (NERD) Team, Laboratory for Advanced Nano Materials and Devices, Ningbo Institute of Materials Technology and Engineering Chinese Academy of Sciences (CAS).

## Traditional Eastern Wisdom

# Water-powered Trip Hammer for Husking

By ZONG Shihan

The water-powered trip hammer is a grain processing tool that uses the power of running water to grind grains, invented in the Western Han Dynasty (202 BC-8 AD).

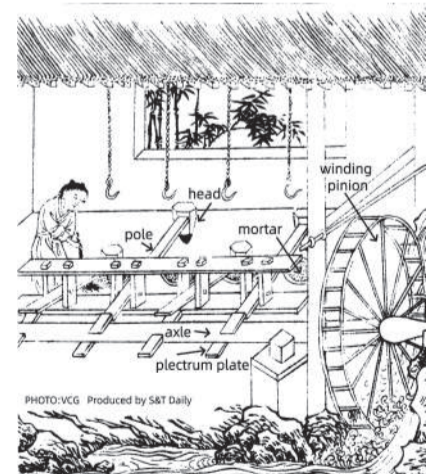
It consists of a winding pinion, axles, plectrum plates, poles, heads, mortars and other components. The running water rotates the winding pinion, and plectrum plates on axles stir the end of poles, which enables heads to rise and fall to crush cereals in mortars.

The water-powered trip hammer is a cleverly designed tool that harnesses the principle of leverage and uses water as its driving force. It operates continuously, day and night, as the perfect antidote for power shortages or time constraints.

Originally, the water-powered trip hammer had only one head. It was Du Yu (222-284) who invented the water-

powered trip hammer with multiple heads to work simultaneously, greatly improving production efficiency.

After the Tang Dynasty (618-907), the use of the water-powered trip hammer gradually expanded to process other materials such as medicine, spices, and minerals.



## Service Info

# IOP-HU Conference Empowers Early Career Researchers

By Staff Reporters

The IOP-HU early career researcher conference from October 12-14 in Liyang city, east China's Jiangsu province, is directed at early career researchers looking to present their research and interact with domestic and international condensed matter physicists, free of registration fees. The conference aims at provid-

ing early career researchers with a stimulating environment to discuss current research and pursue further research in China and Germany, aided with potential postdoctoral funding opportunities such as the IOP-Humboldt Postdoctoral Fellowship in Physics, the IOP International Young Scientist Fellowship and the CAS President's International Fellowship Initiative.