

A Colorful China in the Eye of A Geologist

By LONG Yun & ZHONG Jianli

Dr. Marie-Luce Chevalier, a Belgian/French geologist, has been working as a research professor at the Chinese Academy of Geological Sciences in Beijing since 2010.

For the past 12 years, she has been studying active faults in the Qinghai-Tibet Plateau (such as the Karakorum fault in western Tibet or the Xianshuihe fault in eastern Tibet) and how they move. In 2021, Chevalier was presented with the Chinese Government Friendship Award in appreciation of her contributions to the development of China's seismic disaster assessment system and the promotion of cooperation and exchanges between China and other countries.

Her fascination with nature from childhood sparked her endless passion for science and research. "Science was my favorite subject in high school, largely due to the inspiration provided by my teachers. As a result, I attended college to study physics, which led to further studies in geophysics, tectonic - geomorphology, and geosciences. Now, I spend a lot of time outdoors in my studies, hiking on the Qinghai-Tibet Plateau to collect my rocks," she told *Science and Technology Daily* recently.

China, a choice she has never regretted

Chevalier's choice of China as a research destination was not made by chance. Her research has primarily focused on the Qinghai-Tibet Plateau. She had also collaborated with Chinese scientists from the beginning of her master's program. "When they asked if I wanted to join their team after my postdoctorate, I gladly accepted and have no regrets. My almost twelve years in China



Dr. Marie-Luce Chevalier. (COURTESY PHOTO)

have provided me with a constant source of fresh personal and professional experiences," she said, adding that her mother's interest in Chinese culture contributed to her decision to work in the country.

Commenting on China's present research and innovation environment, she said that the generous research funding and the state-of-the-art facilities are impressive. In addition, the dynamic working environment is good for improving efficiency. Frequent academic exchanges at national and international levels in China also foster new collaboration opportunities.

According to Chevalier, China has made numerous significant advances in

science and technology over the last decade or so, and many of her international counterparts are willing to carry on the cooperative programs with their Chinese counterparts.

As far as communicating while living in the country, she advised her expat peers working in China that learning Chinese is the first step to integrate into the scientific community. "And I believe that once you speak and understand enough Chinese, it can open up many doors for academic research and build up more connections in China," she said.

Her life as a female scientist

As a female scientist, Chevalier often gives special attention to gender

equality in the scientific community. She applauds China's active efforts in promoting female researchers for talent recruitment and research funding grants. "I think the Chinese government is now pushing females into higher positions and [offering females] higher-level grants," she said.

Chevalier is good at striking a balance between her academic research and daily life. Twice a year, she usually spends a few weeks in remote places on the Qinghai-Tibet Plateau, hiking at high altitude to collect rocks, surveying the sites using special equipment, and completing other fieldwork. However, these operations have been suspended temporarily due to COVID-19. "[For] the rest of the year, it is more like office work, such as reading scientific papers, writing papers, preparing and giving talks, and supervising students," she said, adding that having family time with her husband and her four-year-old daughter is also essential in her daily life. In terms of her future academic plan, she hopes to continue her studies, discover new things, expand her knowledge, and test existing theories. Additionally, she is excited about partnering with other institutions in China and internationally. Chevalier values diversity in a team to generate new ideas and resolve scientific problems on a larger scale.

And if she had to choose three words to describe reasons why she continues to remain in China, what would they be? "Convenience" and "fast pace," which she explained were due to China's high-tech and rapid development, while the third would be "safety." "My daughter goes out and plays in the Hutong (small alleyways) where we live. We never worry, even at night," she said.

Letter to the Editor

China-MENA Relations: An Example of Win-win Cooperation

By Rami Khalil

The Silk Road was China's first economic expansion toward the West, connecting China through Central Asia and the Indian subcontinent to Europe. It wasn't only a route to connect markets and creating wealth, but was also a bridge to link people and exchange culture and knowledge.

With the reform and opening-up policies in the late 70s, China recorded an impressive economic development that over 40 years lifted 900 million out of poverty, developed an expanded and modern infrastructure, and created stunning metropolitan and prosperous megacities. The policies also included improving people's well-being and living standards, such as health, education, and welfare. The successful economic development has given China a prosperous economy with surplus capital, capacity and skilled manpower.

Historically, the states of the Middle East and North Africa (MENA) have featured on China's foreign policy compass. Starting in the early 2000s, China's relations with the MENA states continued to expand when China adopted the strategy of "going out" (zou chu qu), and as a result of this, economic and diplomatic relations between two sides witnessed a new dawn, especially after China joining the World Trade Organization in 2001.

With the acceleration of China's energy consumption growth, the MENA region is becoming vital to China's energy security, as this region contains the world's largest energy resources, including 52 percent of the world's oil and 42 percent of the natural gas. According to a report published by the Middle East Institute, more than 45 percent of Chinese crude oil and 19 percent of Chinese liquefied natural gas (LNG) imports are sourced from the MENA region.

Moreover, the MENA region is of specific importance to China as it offers vast opportunities for substantial infrastructure investments in ports, railways and highways, as well as in nuclear energy and high-tech development.

Over the past two decades, the Chinese vision of the MENA region has been greatly focused on cultural dialogue, trade, and economics, in line with what Chinese President Xi Jinping used



Professor Rami Khalil. (COURTESY PHOTO)

to refer to as "win-win cooperation," whereby China achieves its goal in peaceful coexistence and builds strong partnership ties with other nations.

Expanding the scope of MENA-China relations under the Belt and Road Initiative (BRI), is an example of China's active efforts to promote its economic development and management model at the global and multinational level. BRI has made it clear that a new era has begun with a greater focus on massive scale international development initiatives, involving huge infrastructure projects in 66 countries across Asia, Europe, and Africa. China has signed BRI agreements with 21 states in the MENA region, including 18 Arab states, which have a vital impact on China's economy due to their large and young population and substantial markets, with a population of 400 million. About one-third of this figure are aged between 15 and 30, and this population is expected to double by 2060.

We can classify China's relations with the MENA states into five types: (1) Strategic Partnerships; (2) Comprehensive Strategic Partnerships; (3) Comprehensive Cooperative Partnerships; (4) Cooperative Partnerships; and (5) Friendly Cooperative Partnerships.

China is making continuous efforts to strengthen the friendship ties with the MENA region, which is often considered one of the core objectives of its foreign policy. On the other hand, the MENA states are also eager to foster close ties with China as a trustworthy historical partner.

Rami Khalil has served as a professor in Sichuan International Studies University from 2012 to the present.

Traditional Eastern Wisdom

Traditional Chinese Woodcraft: Magical Joints

By QI Liming

In ancient China, there existed a kind of "magic technology" that could make solid wooden structures without the use of nails or glue. It's known as a mortise and tenon structure, which is a concave-convex joint used to connect two sections of wood. You can see this structure in a corbel bracket (dougong).

The convex part is called the tenon (mao), and the concave part is called the mortise (sun). Mortise and tenon together create the connection. This constitutes the main structure of ancient Chinese architecture, furniture and other

er wooden instruments.

If the mortise and tenon joints are properly used, the two wooden structures can be tightly connected and the structure itself would be seamless. Thus, mortise and tenon have also been called "the Lego of China."

Traditionally, mortise and tenon structures can be roughly divided into three types, namely surface to surface, point structure and component combination.

The technology of mortise and tenon structures is still used in numerous modern buildings. The China National Pavilion of the World Expo 2010 Shanghai is the most typical representative.



China National Pavilion of World Expo 2010 Shanghai, typical mortise and tenon structure "dougong (corbel bracket)." (PHOTO: VCG)

Asymptomatic COVID-19 Patients Treated Effectively in Mobile Cabin Hospitals

By Zhang Jiaying & BI Weizi

The recent spread of COVID-19 in China has caused a rapid increase in the number of asymptomatic infections. On April 5 alone, as many as 16,766 asymptomatic cases were reported in Shanghai.

The following Q&A sheds some light on how to deal with issues brought about by asymptomatic infections.

Do asymptomatic infections need treatment?

"Since a portion of asymptomatic infected people are in the incubation period and may also develop the disease, the management of these people requires medical staff to observe changes in their condition, identify cases in a timely manner and make adjustments to their treatment," said Wang Guiqiang, director of the Infectious Disease

Department of Peking University First Hospital.

On March 22, the State Council's Joint Prevention and Control Mechanism issued a guideline for the management of mobile cabin hospitals, which clarifies their responsibility of admitting asymptomatic and mild cases. A certain proportion of medical personnel, medical testing equipment, resuscitation drugs and oxygen are required for these hospitals to ensure basic condition monitoring and treatment, as well as timely referral.

Do asymptomatic infections need medication?

"For asymptomatic key populations, such as the elderly, those suffering from underlying diseases, as well as the frail, the obese and heavy smokers, their conditions might take a sharp turn for the worse and thus need extra atten-

tion," said Zhang Boli, a famous Chinese epidemiologist, adding that for asymptomatic infections, early intervention with Traditional Chinese Medicine can, first, protect them from any symptom; and second, shorten the nucleic acid negative conversion time.

With the large number of asymptomatic infections, how can these patients be most effectively admitted and treated?

Centralized management of asymptomatic infections is, on the one hand, to avoid the further spread of the virus through isolation. On the other hand, it is convenient for medical observation, so that patients at high risk of progression could be promptly detected and referred to designated hospitals for further diagnosis and treatment.

Jiao Yahui, director of the bureau of medical administration at the National

Health Commission, said that the mobile cabin hospital model for the treatment of asymptomatic infected people around the country, is very effective and in line with the regulations and requirements.

It is reported that the State Council's Joint Prevention and Control Mechanism has requested all provinces to build or come up with a plan to build mobile cabin hospitals according to the pandemic situation, ensuring that each province has at least two to three of these structures, which can be built and put into operation within two days when required. The already built mobile cabin hospitals have played a constructive role in the response to the pandemic, such as the rapid treatment of asymptomatic and mild cases, effectively relieving the pressure on local medical resources.

Sci-tech Powers China's Winter Sports Surge

From page 1

It enables much greater efficiency in training by suspending athletes in mid-air and simulating airflows similar to the surrounding winds.

To honor the promise of hosting a green games, all venues for Beijing 2022 were supplied with 100 percent green power and used optimized construction materials that meet the three-star standard of green construction. The competition zones in Yanqing and Zhangjiakou were serviced by hydrogen-fueled buses,

available to connect high-speed railway stations and spectator parking lots.

The National Speed Skating Oval is one of the first venues in the world to use carbon dioxide transcritical direct cooling ice technology for ice-making.

These sci-tech achievements, which received increased exposure through the Beijing Winter Olympics, are also helping to boost sustainable development and create lasting benefits for the people in the host cities and the global community.

PHOTO NEWS



Expat Volunteer in Shanghai

Habib Ur Rehman, a Pakistani expat living in Shanghai, is doing the volunteer job during the nucleic acid test activity. (PHOTO: XINHUA)