Giving History of Fossils Public Appeal

My China Story

By ZHANG Xiao & LONG Yun

"For a paleontologist, every day is traveling through time and being an explorer who can discover a new species, or uncover a page of history that no one knew even existed," said Thomas A. Stidham, a world-renowned expert in the fossil recording and evolution of birds. Currently, the American paleontologist serves as a professor at the Institute of Vertebrate Paleontology and Paleoanthropology (IVPP), Chinese Academy of Science.

Paleontology, a way to know history

Despite that seemingly broad approach to science, Stidham mainly focuses his studies on the evolution of birds by examining their fossils from China and around the world.

According to him, the first dinosaur book he received from his father at the age of three sparked his interest in dinosaurs. "The funny thing is that I met the scientist author of that book many years later while attending my first professional paleontology meeting," he said.

Paleontology now plays an increasingly important part in communicating the history of this planet to the public, said Stidham.

He noted that every discovery of new fossils can either add something to that history, or change everything about what people have known.

At the same time, dinosaurs and fossils are introductions to science for many children. According to Stidham, fossils and paleontology light the imagination of many people around the world.

A land of research opportunities

About 12 years ago, his friend and colleague Zhou Zhonghe, also the former IVPP director, suggested him to take a one-year visiting position at the IVPP.

The original one-year position ended up being 11 years now. "[That is] partly because I met my Chinese wife during my first year, radically changing my direction in life," he said, adding that he quickly grew to enjoy his Beijing-based research and work with his Chinese colleagues.

In his opinion, many things in his life shifted after he came to China.

As a scientist, Stidham has grown and developed his research at IVPP, a top institute for vertebrate paleontology in the world. "I have been able to focus on and develop my research in ways I would not have been able to elsewhere," he said, applauding China's conducive atmosphere for research.

In addition to research work, he has dedicated much of his career to mentoring the next generation of scientists, especially by helping students in writing their research findings in English.

In terms of the paleontological research progress in China, he said that many significant changes had taken place in China related to the study of paleontology in the last 20 to 30 years.

With its fantastic fossil site discoveries, well-trained scientists, and international cooperation, China is leading the study of many areas of vertebrate evolution, with ongoing groundbreaking discoveries and publications, and its paleontologists are well-integrated into global research circles, said Stidham.

Professor Thomas A. Stidham. (PHOTO: the International Talent Magazine)

Telling fantastic science stories

Nowadays, society sees a growing emphasis on science outreach activities, which generate excitement and interest in science among students and the public.

Stidham is one of the practitioners promoting engagement with science and related careers in Beijing. He plays an active role in developing, organizing, and leading many "dinosaur expert" tours for students and families, comprising of public talks and a family overnight dinosaur program in the museum.

These activities gain great popularity among potential future scientists. Stidham cares about the long-term impact his educational programs have on the students. He takes great satisfaction in hearing from parents that their children continue to be enthusiastic about scientific discoveries and interests after taking part in his programs.

"I am using the best resources in Beijing to light the imagination and interest in science among the next generation of scientists," he said.

This devoted scientist believes that active research scientists play an irreplaceable part in popularizing science. Scientists have a unique opportunity to inspire and instruct the public to pursue science dreams by sharing not only their expertise in the field, but also their genuine enthusiasm for science.

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Traditional Eastern Wisdom

Ancient Chinese Art of Lacquer Painting

The ancient Chinese art of lacquer painting. (PHOTO: VCG)

By BI Weizi

Lacquer painting is a technique of decorating the surface of an object with raw or refined lacquer, supplemented by gold, silver, jade, inlays, color and other materials through a series of processes. The shiny lacquer coating is most often made from resin extracted from trees and waxes.

The art of lacquer painting enjoys a long history in China. There are many records of primitive lacquerware in ancient literature. *Han Feizi* notes that painted wood was used as a utensil in the time of Yao and Shun (2355 – 2185 BC), and lacquer was used as a sacrificial vessel in the time of Dayu (2070 - 1600 BC), indicating that lacquer was used in China as early as the legendary Yao, Shun and Yu era.

However, archaeological discoveries predate the written records. The earliest known lacquer ware is a wooden vermilion lacquer bowl excavated in 1978 at the 6,000 - 7,000-year-old Hemudu site in Zhejiang province. Due to its excellent qualities such as durability, corrosion resistance, moisture resistance, and decorative properties, lacquer ware had been favored by ancient Chinese and widely used in daily life.

There are few works on lacquer and lacquerware in Chinese history, and most of them have been lost. The only existing monograph on ancient lacquer work is "*The Record of Painting*" written by Huang Cheng in the Ming Dynasty (1368- 1644). It is the most significant document to study the history, raw materials and techniques of lacquer work in ancient China.

Thousands of years of development and achievements of Chinese lacquer craftsmanship have influenced the whole world, first in East Asia, Southeast Asia, and then in Western Europe and North America. Traditional Chinese lacquer crafts have made significant contributions to human civilization.

Protection Strengthened, Spring Festival Travel Rush Begins

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China's Spring Festival travel rush, the largest annual human migration worldwide, kicked off the same day.

According to an official press conference, the number of passenger trips during this year's Spring Festival travel rush is expected to surge 99.5 percent from the same period last year to reach nearly 2.1 billion.

Regional railway operators have decided to put extra trains into service to meet the robust demand, following a major shift of the country's rules of COVID-19 response.

With regards to COVID-19 containment during this mass seasonal migration, the State Council has taken steps to minimize the impact of the virus on every link of the Spring Festival transport, with priority given to the medical supplies for transport workers.

The country will equip public transport hubs and long-distance trains with more emergency medicines, and public transport operators are also required to increase backups for key personnel such as drivers and dispatchers, step up the cross-regional transfer of manpower, and rotate work schedules to brace for staff shortages caused by virus infection, according to the State Council.

RCEP Adds Momentum to Cooperation

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Under RCEP, Southeast Asian agricultural products have now easier access to China.

In 2022, the Guangzhou Baiyun Airport customs alone recorded over 440 million RMB of imported fruits from RCEP nations, a 12.2-fold jump year-on-year.

"We are no longer worried about export orders as before. The industrial chain adjustment brought about by RCEP has boosted our product sales in the Chinese market," said Narongsak Chuensuchon, chairman of a Thailand company NC Coconut.

It is expected that more than 90 percent of trade in goods within the RCEP nations will be gradually tariff-free in the future.

50%! BDS Appropriate for Global Mobile Phones

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The confirmation of land ownership, precision farming and smart ports based on BDS have been successfully applied in ASEAN countries, south Asia, west Asia, east Europe and Africa to facilitate local development of economies and societies.

In 2022, BDS-3 realized short message communication services (SMC) in public smart phones for the first time in the world.

SMC is a unique feature of BDS with low cost, large coverage and high reliability with random access, and can offer emergency communications and rescue services when no ground network is available.

BDS was selected as one of the 2022 Global Top 10 Engineering Achievements recently by the journal Engineering hosted by the Chinese Academy of Engineering.

Letter to the Editor

China Rings Out the Year of Achievements

Ershad Shikdar

At the advent of 2023, one more memorable and eventful year of my life has elapsed. Just like the last two years, I also ushered in this new year in China, far from home. While looking back on the outgoing year, I could see China's many achievements in 2022.

China embarked on its year-long journey of success by hosting the Winter Olympics and Paralympics in Beijing at the beginning of the year.

In my eyes, it was not just a sports tournament, but a platform to showcase China's capacities and prowess as the world's second-largest economy. Through this platform, China showed the world its innovations in the field of science and technology, as well as commitment to dealing with climate change by staging a green and sustainable games.

The Olympics also earned Beijing the title of "the city of two Olympics," as the capital held the Summer Olympics in 2008. The Beijing Winter Olympics also set several rarest records in the history of the Olympics. China stunned the world by applying its exciting and cutting-edge technologies at the games. From designing and evaluation, to construction and operation, scientific innovation and technology were applied in every aspect of the games.

High-tech was also used in the prevention and control of the pandemic, reducing carbon emissions, ensuring the safety of the events, and creating a better viewing experience for spectators. To set a new benchmark for a sustainable and intelligent games, robots were employed for disinfection, body temperature checks, and environment monitoring against aerosol transmission of the novel coronavirus. Much to the surprise of many, robots cooked mouth-watering dishes and served the guests, as well as serving as butlers in the Olympic village canteen.

Another epoch-making event last year was the 20th National Congress of the Communist Party of China (CPC). The congress elected Xi Jinping as general secretary of the CPC Central Committee for the consecutive term, as well as introduced new faces to the party leadership.

This congress was important for not only electing new leaders, but also for raising hopes of the Chinese people and the world alike. This is because the Chinese leadership at the congress reiterated that China will continue promoting broader and deeper reform and opening up the country across the board.

In 2022, China reached another milestone of its success in space exploration. The country became the third nation in the world to establish and operate a permanent space station called Tiangong, which means "heavenly palace."

With such tremendous success, China has raised the hope across the world, especially in developing countries, to be part of space exploration, and encouraged them to dream of carrying out their own research in space. The world believes that China's space feats will not only help the Chinese people, but also contribute to human progress.

China made several major scientific and technological breakthroughs in 2022, including building the world's largest clean energy corridor and delivering its first self-developed aircraft, the C-919, to China Eastern Airlines. It is the first medium-haul passenger airplane designed and produced by China. Beijing also launched its third aircraft carrier, the Fujian, which is completely designed and built at home.

As a foreign journalist, the most important development in China for me is the optimization of its control measures of COVID-19. It was a timely and scientific measure, as the virus is now not as deadly. China has already proved its mettle in updating and optimizing its measures during the pandemic.

In conclusion, China has bidden adieu to a year with several outstanding successes in different sectors, not least of all in diplomacy and global politics. The country has declared its presence in the international arena by attending the G-20 summit and spreading its footprint in the Arab world. The peace-loving Chinese people have hailed their country's progress for the greater interests of humanity.

Ershad Shikdar is a journalist and opinion writer from Bangladesh living in China.

Sci-tech Vital for Rural Development

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Promoting technologies

To transform technologies into tangible output in the field, governments at all levels encouraged institutes and enterprises to send agricultural experts and technicians to rural areas and provided technical guidance and services. The specialists are called "science and technology commissioners."

First launched in 1999 in Nanping, Fujian province, the science and technology commissioner system has been applied nationwide. Over the past ten years, nearly 290,000 commissioners have been dispatched to support the poverty alleviation effort in 100,000 villages across China.

The late Li Baoguo, professor at Hebei Agricultural University, was once such a respected science and technology commissioner. He remained in the mountainous region in Hebei for more than 30 years, devoted to ecological governance and poverty alleviation in the Taihang Mountains. His efforts paid off, with 1.4 million mu of barren mountains turning green, and about 100,000 local farmers escaping poverty.

Apart from technology, skilled labor is another key for requirement for social and economic development in rural areas. Ma Jun, a science and technology commissioner of Sichuan province and professor at Sichuan Agricultural University, has been promoting new technologies to farmers and training them in agricultural skills.

Cultivating new agricultural industries

To realize the modernization of agriculture and rural areas, it is vital to promote the deep integration of science, technology and industry, and develop green, high-quality agricultural industries that suit local conditions.

Wuyi Mountain is the birthplace of Oolong tea and black tea. Since 2015, Liao Hong, professor at Fujian Agriculture and Forestry University, also a science and technology commissioner, has led her team to build an ecological tea garden demonstration project.

The Yanziyong Ecological Tea Garden in Xingcun town, Nanping city, Fujian province, with a total area of more than 10,000 mu, benefits more than 100,000 mu of surrounding areas. Ecological tea gardens not only increase tea yields, but also create more profits with improved soil and tea quality, now becoming the major growth engine of the local economy.

In the 1980s, professor Lin Zhanxi at Fujian Agriculture and Forestry University invented Juncao technology to grow edible mushrooms on grass-based substrates, instead of felled trees. The promotion of Juncao technology, "the grass of happiness," has brought economic and ecological benefits to more than 500 counties across China and more than 100 countries and regions around the world.