LIFE IN CHINA

Technology Illuminates

Evolution of Li-Yue Civilization

Road to Cultural Understanding

Dialogue

By LONG Yun & WANG Yuhan

When Russian scholar Olga Dubkova arrived in China in 1997, despite it being her first visit, she was no stranger to Chinese culture.

Having taught Chinese students Russian for five years before her arrival, she had already developed a deep appreciation for Chinese traditions and values. "I didn't experience culture shock," she says. "What surprised me more was the landscape, especially the

Coming from the flat terrain of Western Siberia, she says she still gets excited when she sees mountains. "It reminds me of the story of the 'Foolish Old Man Who Moved the Mountains," she says, referring to a Chinese fable about a man achieving the seemingly impossible with sheer dedication and perseverance. "Only a people as hardworking as the Chinese could build such beautiful roads across such varied ter-

Now a respected scholar and professor at Xi'an International Studies University, Dubkova has spent over two decades contributing to Chinese studies, translation, and education. Her work extends beyond the assignment, going deep into the ideas that shape China's development and its evolving role in the

Bridging cultures through research

A prolific author, Dubkova's influential book The Theory of Socialism with Chinese Characteristics: From Idea to Practice has drawn wide attention in Russian academic circles. She explains what drew her to the study of China's political and social development: "China is a country with 5,000 years of history. Its civilization has not only shaped itself, but also influenced the world beyond Eurasia."

She also highlights the strategic partnership between China and Russia, noting that both countries are working together to build a new global order



Professor Olga Dubkova. (COURTESY PHOTO)

based on principles like the Five Principles of Peaceful Coexistence proposed over 50 years ago. These principles are mutual respect for each other's territorial integrity and sovereignty, mutual nonaggression, mutual non-interference in each other's internal affairs, equality and mutual benefit, and peaceful coexis-

Dubkova emphasizes that understanding China's future requires understanding its past. "Only by understanding the past can we see the future," she says. She keeps up with current events and reads extensively, considering it her duty to share the knowledge she has gained through decades of collaboration with Chinese colleagues and students.

Carrying meaning across languages With over 80 co- authored works and translations to her name, including The Values of the Chinese People and Selected Tang Poems, Dubkova sees translation as a key tool for cultural exchange. She explains that translating political texts and translating classical poetry pose very different challenges. "Machine translation of political documents is possible," she says, "but the results still need careful editing. The process is similar to what happened in the Tang Dynasty (618-907), when teams of scholars worked together to translate Buddhist texts."

Poetry, however, remains a uniquely difficult art. "The problem of preserving poetic meaning in translation has not been solved," she admits. She often relies on a two-step method: a literal translation followed by creative adaptation by a poet. She draws inspiration from early 20th-century Russian poets, such as Anna Akhmatova and Nikolai Gumilev, who created beautiful Russian versions of Chinese poetry based on literal translations. "My dream is that 100 years from now, Russians will still be reading my translations," she says.

In her work, The Values of the Chinese People, she employed scientific methods, including statistical analysis, to explore how the Chinese perceive concepts such as "homeland." The results showed that "homeland" is deeply connected to the family, nation, and the Communist Party of China, and not a single respondent gave a negative response. "This shows objectively that the concept of homeland is central to Chinese life," she says.

Beyond translation, Dubkova has also contributed to education through her co-authorship of more than 20 Russian language teaching materials, many of which are now widely used in Chinese universities. She stresses the importance of keeping educational content up to date. "Languages change," she points out. "So should our teaching methods." She encourages fellow educators to stay active in curriculum development, emphasizing that outdated materials hinder students' ability to engage with the real

Belonging to a city and a culture

Xi'an has become Dubkova's second home. She first visited the city in 2001 during the Spring Festival and was captivated by its ancient beauty. "It was snowing," she recalls. "The rooftops were covered in white, and the lanterns on the city walls made everything feel bright and joyful." That moment left a lasting impression, and when she later had the opportunity to work at Xi'an International Studies University, she didn't hesitate.

She speaks warmly of the city's unique character. "Xi'an is an important center in northwest China," she says. "Its history has had ups and downs, but it has always maintained the pride and dignity of an ancient capital." She has traveled widely across Shaanxi province, from big cities to villages, and says the feeling of peace and harmony she finds there grows stronger with each visit.

Her dedication to her work was recognized in 2024 when she received the Chinese Government Friendship Award, a moment she says was deeply emotional. "I can describe the details of the award ceremony," she says, "but I still can't fully grasp the meaning of the whole experience. This award belongs not only to me, but to my university, my colleagues, my students, and everyone who has supported me."

Today, Dubkova continues to teach, translate, and research to deepen mutual understanding between China and the world. "To understand another culture," she says, "you must first understand your own. And once you open your heart, the world opens its doors to you."

of 1,180°C to 1,280°C, with temperatures above 1,250° C producing the optimal green or blue hues. In certain instances, it seems that multiple layers of glaze and several firings were required to cre-

ate a richer glaze effect. Today, skilled celadon craftsmen meticulously manage every phase using a thermometer and observing the color of the flame, reaching up to 1310°C. The final product can take one of two forms: "elder brother" celadon features a black finish with a crack pattern, whereas the "younger brother" type showcases a rich lavender-grey and plum-green sheen. Celadon, characterized by its jade-like green hue, produced by family-run enterprises in Longquan, is highly valued as both artistic masterpieces and functional household items. It stands as a proud emblem of the cultural legacy of the arti-

By HONG Jingpu & LONG Yun

The Wuwangdun No. 1 tomb, believed to be the burial site of King Kaolie of the Chu state during the Warring States period (475-221 BC), offers a vivid window into how the ancient Chinese "Li- Yue" (ritual and music) civilization evolved over time.

Tech+Culture

Located in the city of Huainan in Anhui province, east China, it is one of the largest, most complex, and best-preserved high-ranking Chu tombs scientifically excavated, revealing both the continuity and transformation of ritual culture in ancient China

Over 10,000 artifacts have been unearthed from the tomb, including nearly complete sets of ritual vessels and musical instruments, as well as a large number of lacquered wooden objects used in daily life. Particularly striking are the musical figurines and instruments such as the gu (drum), se (a plucked zither), and sheng (a reed mouth organ), which reflect the rich musical traditions of the Chu people.

According to Li Youping, former vice president of Wuhan Conservatory of Music, "while aristocratic tombs in other parts of China during this period were dominated by metal and stone chimes, Chu tombs frequently contained string and bamboo instruments, even when chimes were absent."

"Bell and chime music mainly represented state rituals, while string and bamboo instruments expressed more personal emotions. This reflects the era's characteristic of multicultural integration," he explained.

Excavating and preserving such an ancient site has not been easy. To meet the challenges, archaeologists applied advanced technologies from the start. Neutron imaging was used to scan artifacts like CT scans, clearly revealing their internal structures and details. Automatic misting systems using deionized water helped maintain moisture levels for the lacquered wooden artifacts, preventing them from drying out and cracking after thousands of years under-

The Wuwangdun archaeological digital management system employed 3D scanning to assign each artifact a unique electronic tag, making it easy to track their excavation status, transportation, and storage.

One of the most innovative tools used was a custom-built XRF (X-ray fluorescence) spectrometer. Unlike the traditional models designed for flat surfaces like paintings, this device can scan curved or uneven surfaces, which is ideal for complex Chinese artifacts such as carved lacquerware or bronze ritual vessels. Developed by the Institute of High Energy Physics at the Chinese Academy of Sciences, the XRF combines X-ray imaging, AI, and advanced software to map out the elemental composition of ancient pigments and materials with high

Analysis revealed elements such as copper, calcium, iron, and arsenic in the lacquer pigments. These findings expand previous understanding of ancient

Using a 0.4 mm resolution, the scanner can analyze around 70 square centimeters of surface in two hours. It helps researchers detect subtle craftsmanship details invisible to the naked eye. As project leader Gong Xicheng remarked, "This technology not only reveals the original colors of ancient objects but also supports future conservation and restoration efforts."

The XRF spectrometer was developed under the leadership of Xu Qiong, associate researcher at the Institute of High Energy Physics. It integrates X-ray imaging, AI, and advanced software algorithms, and is capable of three functions: targeted micro- area elemental analysis, high-resolution planar elemental imaging, and high-resolution curved surface elemental imaging. This allows scanning of curved or uneven surfaces to obtain highly accurate surface elemen-

Xu Qiong said, "This XRF spectrometer clearly reveals the mysterious cultural attributes and complex craftsmanship of Chinese cultural relics."

As the excavation nears completion, the next step is to share these discoveries with the public. Plans are underway to build an archaeological park around the site, including the Wuwangdun Chu Culture Museum in Huainan, where visitors will be able to explore the tomb, its treasures, and the rich cultural heritage of the Chu state.

Timeless Craft of Longquan Celadon

Traditional Eastern Wisdom

By BI Weizi

The production of Longquan celadon, green- glazed Chinese ceramic, dates back over 1,700 years, reaching its golden age during the Song Dynasty. This era is recognized as one of the most renowned for celadon kilns in both Chinese and global ceramic history, noted for its broadest distribution of kiln locations, most rigorous quality control, longest history and largest scale of ex-

Longquan celadon features a sturdy,

grevish- white body with a delicate. clear glaze, and is recognized for its appearance of "green and moist akin to

The traditional firing technology of Longquan celadon is an intricate and sophisticated art form that encompasses both craftsmanship and artistic skills, primarily evident in the processes of preparing raw materials, moulding, decorating, and high-temperature firing. In September 2009, this technique was officially inscribed on the UNESCO's Representative List of Intangible Cultural Heritage of Humanity, making it the first ceramic project globally recognized as "intangible cultural heritage."

The hues of Longquan celadon glazes

range from a broad array of greyish to bluish greens, including some yellowish browns too. The color comes from iron oxide fired in a reducing atmosphere, and the color varies with the temperature and the strength and timing of the reduction. Longquan celadon was fired in long dragon kilns, made up of brick tunnels rising up a slope, featuring a series of chambers, and the finest results were achieved at the pots in the uppermost stages, which heated up more gradually and evenly. Saggars (ceramic containers) were consistently utilized, and the extended kilns, featuring up to 12 chambers, could potentially fire as many as 25,000 items simultaneously. The firing temperature was likely in the range

sans, their city, and the country.

countries to compete, collaborate, and

innovate together.

Professor Wen Yonggang, chair professor at Nanyang Technological University and fellow of the Singapore National Academy of Engineering, sees its huge potential. "This is a chance to bring more ASEAN teams into the fold and build a regional AI innovation alliance,"

As AI reshapes industries and societies, Guangxi is positioning itself at the heart of a new China-ASEAN innovation corridor. With strong policy support, growing infrastructure and a bold vision, it is realizing AI from a futuristic dream into a powerful tool for growth, collaboration and shared prosperity.



The pictures show lacquerware unearthed from the Wuwangdun tomb. (PHO-TO: Anhui Provincial Cultural Relics and Archaeology Research Institute & XIN-

Guangxi's Smart Move to Fuel Regional Development

On June 30, the China-ASEAN AI Innovation Cooperation Center Exhibition Hall opened for trial operations. It is the product of policies like the "Decision on accelerating the high-quality development of AI" and the "AI + Manufacturing" Action Plan, setting clear

Other major projects are also taking shape, including the Liuzhou ASEAN Intelligent Computing Center, the Yulin Low-Altitude Economy Industrial Park, and the Hezhou Smart Device Compo-

The AI Super League is more than a

tech competition. At the event, AI robot attendants made coffee on the spot, showcasing how AI is moving from "talking" to "doing." In smart farms, AI systems monitor crops and livestock 24/7, replacing manual labor.

The league's "Scenario Breakthrough" contest focuses on 17 key sectors, from agriculture and education to healthcare and tourism. The "Call for Heroes" challenge tackles some of the toughest technical problems in AI development. For example, the Geely Automotive Research Institute unveiled its new Full-Domain AI for Smart Vehicles system, aiming to make every car a companion with feelings and inviting global talents to help bring the vision to life.

The "AI for All" public challenge, open to everyone, encourages people to explore how AI can reshape everyday life. "AI is not just for experts anymore," said Li Muhan, co-founder of Yuguang Tongchen (Hangzhou) Cultural Technology Co. "It's for creators, dreamers, and doers. Let's use AI to empower Guangxi."

A regional vision

The AI Super League isn't only about Guangxi. It is building a regional AI ecosystem. The event encourages joint teams from China and ASEAN

creating high-resolution images and videos, then using existing research to build 3D models, reconstruct the tombs'

Preserving Xixia Imperial Tombs with Tech scale virtual exhibitions. "This approach

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"AI combined with cultural relic protection and heritage research is a growing trend," said Du Jianlu, dean of the School of Ethnology and Historiography at Ningxia University. "For the Xixia Imperial Tombs, digitalization is essen-

The first steps, he explained, are historical appearance, and create largenot only promotes cultural tourism but also reduces wear and tear on the actual site — offering a more advanced form of preservation and transmission."

Efforts to digitize the tombs and their relics are underway. Ningxia University is creating a digital archive of the tombs' artifacts which has over 400 cultural products. With these technological advancements, the Xixia Imperial Tombs are poised to be better protected and more widely celebrated in the future.