

Academy to keep interest in grottoes alive

Yungang heritage site in Shanxi hopes to attract researchers from around the world

By YUAN SHENGGAO

Research into the globally renowned cultural heritage site of Yungang Grottoes in Shanxi province is expected to reach new heights with the launch of an academy on Feb 19, said local officials and experts.

Lou Yangsheng, Party secretary of Shanxi province, attended the launch ceremony of the Yungang Grottoes Academy.

He said it represents Shanxi's latest move to protect the cultural heritage site and attract global interest into research of the site.

"We aim to build the academy into an authoritative platform for the research on local Buddhist culture and arts and promote the globalization of Yungang studies," Lou said.

Yungang Grottoes, located in the northern Shanxi city of Datong, is one of the three most famous Buddhist grottoes sites in China. The other two are Mogao Grottoes in Dunhuang, Gansu province, and Longmen Grottoes in Luoyang, Henan province.

Yungang Grottoes was built more than 1,500 years ago during the Northern Wei Dynasty (386-534), when Datong, which was then called Pingcheng, served as the nation's capital.

The grottoes were carved out of sandstone cliffs on Wuzhou Moun-



tain in the northwestern suburbs of Datong.

According to historical documents, a total of 54 main caves were carved out during the period from 460-524. Today, 45 main caves remain intact which house more than 59,000 statues, ranging from a few centimeters to 17 meters in height.

Yungang Grottoes was included on the UNESCO World Cultural Heritage list in 2001.

UNESCO said in a document that the site has a universal value as it represents "the outstanding achievement of Buddhist cave art in China".

While influenced by Buddhist cave art from South and Central Asia, UNESCO said Yungang Grottoes has interpreted Buddhist art with Chinese character and local spirit. "As a result, Yungang Grottoes have played a vitally important role among early Oriental Buddhist grottoes and had a far-reaching impact on Buddhist cave art in China and East Asia."

The grottoes have attracted the attention and interest of overseas scholars since the early 20th century.



A technician works to preserve the statues at Yungang Grottoes in Shanxi province. PROVIDED TO CHINA DAILY

Japanese architecture researcher Chuta Ito was among the first foreign scholars who introduced Yungang Grottoes to the world. He published a book on Yungang Grottoes shortly after his research tour of the site in 1902.

Today, Yungang has become a popular destination for researchers and tourists from across the world.

In 2020, despite the COVID-19 pandemic, Yungang Grottoes received 1.46 million visits and netted

a revenue of 38.98 million yuan (\$6.04 million), according to the culture and tourism bureau of Datong.

After Yungang Grottoes was battered by wind, rain and snow over 1,500 years, protecting this precious cultural heritage site has become a pressing challenge, said Zhang Zhuo, Party secretary of the Yungang Grottoes Academy.

"Cultural heritage protection is a major task of the Yungang Grottoes Academy," Zhang said.

Over the past decade, the Yungang Grottoes Research Institute, the predecessor of the academy, launched a number of programs to protect the site.

One effort was a collaboration with the Getty Conservation Institute based in the United States. In Yungang, collaborative activities included environmental monitoring to assess the extent and effect of weathering due to pollution, wind, rain and extreme temperatures. They also

developed a comprehensive conservation plan to prevent deterioration caused by visitors and the environment, according to Zhang.

"We have made progress in preventing damage caused by pollution and weather, and we are now shifting our focus to minimizing the effects by visitors," Zhang said.

One of the Yungang Grottoes Academy's solutions is to divert visitors to nearby facilities, easing pressure on the caves.

The academy operates a number of museums and galleries, allowing visitors to explore the grottoes' history and hidden details with the assistance of virtual and augmented reality.

Wang Chao, a tourist who visited the Yungang Grottoes Museum in mid-February, said the digital displays at the museum offer a better experience than the caves themselves.

"We can have a close look at every detail of the caves — the statues and the decorations. It is impossible for you to see these in the real caves," Wang said. "And we are told the history and stories behind every detail. This is something you can never expect from any tour guide."

According to Zhang, the Yungang Grottoes Academy plans to hold online exhibitions for audiences throughout the world, allowing them to visit this world heritage site from their homes.

Xing Aitian contributed to this story.

Smart technology revamps local mining industry

By YUAN SHENGGAO

A smart mining technology laboratory, jointly founded by technology company Huawei, the Shanxi provincial government and local mining companies, was launched in the Shanxi capital of Taiyuan on Feb 9, marking a further step in the digitalization and smart operations of Shanxi's mining industry.

Lou Yangsheng, Party secretary of Shanxi province, and Ren Zhengfei, founder and CEO of Huawei, unveiled a plaque for the lab during the launch ceremony.

"We used our intelligent technologies to develop the first smart coal mine in Shanxi in 2020, and we expect hundreds of such coal mines to come in the following years," Ren said at the launch.

The first smart coal mine refers to Xinyuan Coal Mine, a branch of coal-mining group Huayang New Material Technology based in the city of Yangquan in the east of Shanxi.

Using technologies and solutions from Huawei and telecom operator China Mobile, Xinyuan announced in July 2020 the operation of the first 5G-connected coal mine in China.

Two months ago, Ren paid a visit to Xinyuan to tour and witness the operation of the smart coal mine.

During the trip, Ren met with Shanxi Party secretary Lou to explore further opportunities for all-around



Lou Yangsheng (front, second from right), Party secretary of Shanxi province, and Ren Zhengfei (front, third from right), visit the new smart mining tech lab in Taiyuan, Shanxi province.

LI LIANJUN / FOR CHINA DAILY

collaboration with Shanxi's mining enterprises. The smart mining lab is part of the consensus reached by the two.

During the lab's launch ceremony, Ren said the Xinyuan 5G-connected coal mine is the first test of how to use cutting-edge digital technologies to upgrade Shanxi's traditional pillar industry of coal mining. He said he is happy to see that fruitful achievements have been made in this field and promoting the Xinyuan experience to hundreds of coal mines in Shanxi is an important task

for Huawei in the years to come.

When recalling the collaboration between Xinyuan and Huawei, which started in September 2019, executives of the companies said the cooperation was a challenging mission for both sides.

"The fact that telecom engineers were not familiar with coal mining and coal-mining engineers not familiar with telecoms meant the collaboration across two totally different industries required painstaking efforts," said Zhai Hong, board chairman of Huayang.

Zhai said engineers from both sides have been highly motivated in the face of challenges, with Xinyuan engineers making great efforts to learn the latest digital technologies and Huawei's engineers venturing to the depths of mining shafts to study various application scenarios.

As a result, the collaboration has yielded a number of technological firsts in the country, including the first underground 5G base station and the first 5G network for mining shafts.

Ren said he is happy to see 5G technologies have played an important role in promoting coal-mining automation, improving efficiency and strengthening safety. He said the collaborative results made by the two companies are important for Huawei's further cooperation with Shanxi and the newly launched lab should promote such experiences and propose new solutions.

The smart mining technology lab currently has 220 researchers, including 50 from Huawei.

"We are the first in the world to use digital and information technologies for mining on a large scale," Ren said. "China has more than 5,300 coal mines and 2,700 metal mines. This will be an ideal testing field for Huawei to tap into the global mining industry."

Guo Yanjie contributed to this story.

Festive frolics



Residents of the village of Diantou in Taiyuan, Shanxi province, celebrate Spring Festival with yangko, a popular folk dance.

SU XIAOJIAN / FOR CHINA DAILY

Tourism blooms as government offers incentives to stay put

By YUAN SHENGGAO

Despite sporadic COVID-19 outbreaks, tourist destinations in North China's Shanxi province recorded 19.07 million visits during the seven-day Spring Festival holiday starting on Feb 11. They reported a combined revenue of 11.21 billion yuan (\$1.74 billion), according to big data platforms.

However, unlike previous Spring Festivals, people from Shanxi, both permanent residents and migrant workers, accounted for a majority of the visitors.

Statistics show more than 56 percent of tourists were from Shanxi, with only 43.7 percent coming from other parts of the country.

This change in tourist origin can be attributed to the government's caution on long-distance travel. It came in response to pandemic prevention and control, local officials said.

Migrant workers were encouraged to stay where they work, as so many local destinations allowed free entry.

Zhang Hua, a native of Shaanxi province in Northwest China, has worked in Hongtong county in Shanxi province for three years. She chose to stay during this year's Spring Festival.

She visited the village of Dahuaishu in the county on Feb 12, the first day of Lunar New Year.

Dahuaishu, which means big pagoda tree, is said to be the ancestral hometown of many Chinese families as it was the source of a massive immigration movement during the Ming Dynasty (1368-1644).

19.07 million

visits to tourist attractions in Shanxi during this year's weeklong Spring Festival holiday starting on Feb 11

"Although I've been in Hongtong for three years, this is my first time visiting my ancestral hometown of Dahuaishu," Zhang said.

Zhang said the Dahuaishu Ancestor Memorial Garden, a major tourist destination surrounding the legendary pagoda tree, was decorated with "lovely lights" in the evening and she posed for a picture there.

As local tourism operators were aware of the changing trend of this year's travels, they designed many special activities for local tourists.

The botanic garden in the provincial capital of Taiyuan, for instance, held a grand flower show for visitors during this year's Spring Festival.

"We arranged a range of events for family tours," said Pan Liang, deputy chief of Taiyuan Botanic Garden.

"Various facilities for children were installed in the garden. There were also exhibitions and lectures to spread botanic knowledge among children," Pan said.

The garden offered free tickets to local migrant workers. According to Zhang, the botanic garden received 145,984 visits during Spring Festival. Nearly half of the visits were free of charge.

Wang Pei contributed to this story.

Returned Buddha head debuts on Spring Gala broadcast

By YUAN SHENGGAO

A Buddha head sculpture was shown for the first time on State broadcaster China Central Television's Spring Festival Gala on Feb 11, marking its first public appearance after its return from Japan two months ago.

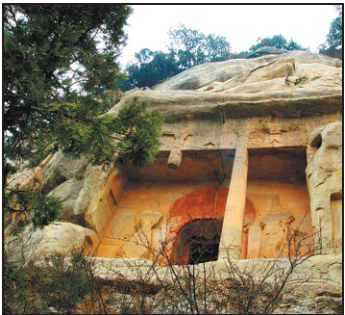
The stone Buddha head, stolen from one of the statues in Tianlongshan Grottoes in North China's Shanxi province and smuggled to Japan nearly 100 years ago, was brought back to China on Dec 12, Xinhua News Agency quoted the National Cultural Heritage Administration as saying.

The NCHA said it was the 100th cultural relic item retrieved by China from overseas in 2020.

The administration first identified the Buddha head in September 2020 as a relic from Tianlongshan Grottoes in the suburbs of Taiyuan, capital city of Shanxi province, when the sculpture resurfaced at a Japanese auction house.

Tianlongshan Grottoes, 36 kilometers to the southwest of Taiyuan, is notable for the Buddha statues in its 25 caves. Construction of the grottoes began in the Eastern Wei Dynasty (534-550) and continued until the Tang Dynasty (618-907).

In the 1920s, a large number of statues — over 240, according to the NCHA — were stolen from the grot-



From left: The Buddha head sculpture is the 100th cultural relic item retrieved by China from overseas in 2020. An external view of Cave 8 in Tianlongshan Grottoes in Shanxi, where the sculpture was stolen in around 1924. PHOTOS PROVIDED TO CHINA DAILY

toes and smuggled overseas, and are currently housed in museums in Japan, Europe and the United States, or have been obtained by individual foreign collectors.

After identifying the to-be-auctioned Buddha head to be a relic from Tianlongshan, the NCHA contacted the auction house and required a halt to the sale, according to Xinhua reports.

The most fortunate thing about the Buddha head is that Zhang Rong, board chairman of the auction house, is a Chinese national. In late October, after buying the Buddha head from the Japanese collector, Zhang decid-

ed to donate the sculpture to the Chinese government, Xinhua reported.

"Purchasing the relic was the simplest way to bring it back to China, instead of conducting lengthy negotiations with the foreign collector," Zhang told Xinhua.

Zhang said as a Chinese citizen, his action in helping to retrieve the sculpture was driven by patriotism.

Examinations and evaluations conducted by experts after the Buddha head arrived in Beijing found that the relic had been stolen from a statue in Cave 8 of the grottoes in around 1924.

After its public debut on CCTV, the

Buddha head is being exhibited at the Beijing Luxun Museum.

On Feb 16, Hang Kan, a professor of archaeology at Peking University, and head of the Yungang Grottoes Academy, held a seminar at the museum to share with audiences his insights into the historical, cultural and artistic values of the sculpture as well as the Tianlongshan Grottoes.

He said the grottoes were built during the period from the warring Northern Dynasty (386-581) to the prosperous Tang Dynasty and this was also a period featuring the localization of Buddhist arts.

He suggested audiences pay special attention to the facial expression of the Buddha head.

"Seen from every angle, the Buddha presents a smiling expression. This is a show of confidence identical to a prosperous period like the Tang Dynasty," Hang said.

The Buddha head will return to Tianlongshan Grottoes after exhibition and research work is finished in Beijing, according to Yu Hao, head of Tianlongshan Grottoes Museum.

The official said the Buddha head will not be returned to its original body as the body is no longer intact because of weathering and water erosion. Instead, it will be displayed at the museum.

Guo Yanjie contributed to this story.