

## CHINA



Chen Yuemeng (right) and his colleagues work at the Guiyang Public Security Bureau's drug identification center in Guizhou province. WANG JIN / CHINA DAILY

# Drug analyzer helps neutralize illicit trade

Police officer's lab team has handled more than 30,000 cases and examined 40,000 samples over the past decade

By YANG ZEKUN in Beijing and YANG JUN in Guiyang

Unlike the twisted drug maker in the popular US television series *Breaking Bad* — Chen Yuemeng uses his knowledge of chemistry to solve crimes.

Chen, 43, works for the Guiyang Public Security Bureau in Guizhou province. Since he started drug analysis work in 2010, he has handled more than 30,000 drug cases, examined more than 40,000 samples and is confident he has not made a single mistake.

He works in the laboratory and occasionally goes to crime scenes to gather samples. However, he always reminds himself to be cautious as every examination of drug-related evidence is crucial to the outcome of a case and influences the sentence a convicted criminal receives.

## On the job

After graduating from Guizhou University's chemistry school in 2001, Chen worked for a company in Guiyang for five years. In 2007, he became a police officer at the city's public security bureau and worked in its drug investigation unit for three years.

He recalled a drug raid in 2009 when the intelligence differed from the situation on the ground. He approached the target room cautiously but was forced to draw his gun and shout "don't move!" when he encountered several drug dealers. After subduing the dealers, he immediately called his colleagues for backup.

Chen transferred to the technical division with the bureau's drug identification center in 2010. There were only two people in the division at that time, and Chen's co-worker later applied for a transfer over health concerns about the chemicals used in their work.

However, over the years more technical personnel have been hired and the team now has 12 members. "I've stuck with the job because I like it," Chen said. "I like the feeling of working in the lab surrounded by the apparatus, reagents and glassware, and I can use my knowledge to solve cases."

Chen handles about 3,000 cases every year and analyzes more than 4,000 suspected drug samples.

Sometimes it's just as important for the forensics team to establish that what has been seized is not illicit drugs.

Chen once received samples of what police believed was ketamine seized in a drug operation. He and his colleagues used five different methods to analyze the sample but could not detect any illegal drugs.

The sample was later sent to the Ministry of Public Security for further testing and found to be sugar.

"Officers at the scene should consider the seizure as suspect drugs, but a conclusion can only be drawn after that seizure has been examined," he said. "Every forensic report determines the nature of the case. Detection personnel must have both professional skills and a high sense of responsibility."

## Technical challenges

Police drug examination procedures usually involve grinding, weighing and dissolving the seized materials and using forensic equipment — such as mass and infrared spectrometers — for final analysis before a report is issued. The procedure can sometimes be as quick as an hour, which speeds up the processing of cases, Chen said.

In 2019, Chen and his colleagues further developed near-infrared spectroscopy analysis — a method used by police departments around the world — to examine drugs.

Examiners can get information about a sample's organic molecules by scanning the near-infrared spectrum, shortening the time it takes to identify drugs such as methamphetamine, heroin and ketamine, to around five minutes. When trying to determine whether a suspect has used drugs, urine, saliva, blood or hair samples are usually required.

However, the nature of some drugs can present tougher challenges for proper identification. Identifying cannabis on a suspect is a challenge for inspectors. The main psychoactive ingredient of cannabis, tetrahydrocannabinol, has a low rate of binding to melanin in the hair and easily degrades after prolonged exposure to light.

## Synthetic drugs

Identifying new synthetic laboratory drugs is another obstacle.

While their long-term use can cause mental and physical problems, they are difficult to identify because of the wide varieties produced and their complex chemical structures, Chen said.

By the end of 2019, China had about 2.14 million drug users, down 10.6 percent year-on-year, according to a report released by Office of China Narcotics Control Commission in June. It said new forms and types of drugs are emerging, making identification of them more difficult. Some drugs were even disguised as milk tea and chocolate.

"The biggest challenge is helping drug users to control their temptations and stop them taking drugs," Chen said. "Even people who have been off them for a long time may return to drugs if they can't control themselves."

Police in Guiyang regularly examine the urine samples of recovered drug addicts to ensure they aren't using alternative substances. Since 2018, Guiyang's sewage has been routinely tested for the concentration of drugs.

## Family life

Although Chen has achieved a lot in his work, he regrets not spending more time with his family and also the fact he cannot talk about his job with them.

He usually arrives at the office before 8 am and leaves around 6 am. It is common for he and his colleagues to work to 2 am, or wait until the next day for samples of suspect drugs that need to be tested.

"Some tasks are unexpected and we have to be ready all the time to offer support, so it is hard for me to balance work and home life," he said. "My wife occasionally complains that I often ignore the family and only care about work. But she understands me well and often worries about my health."

Chen has two children, ages 2 and 11, who he said aren't fully aware of what his job entails. "My older kid once saw a report about me on the TV, and he was quite proud of that and showed it to his classmates," he said.

Wang Jin contributed to this story.

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# Thinking outside the box, villagers in Gansu profit from rare lilies

LANZHOU — "Is everybody OK?" Gao Zuowang asked as he began his livestreaming show in clumsy but enthusiastic English ahead of this year's Spring Festival.

The former Party secretary of Yuanjiawan in Gansu province, Gao was hosting an online promotional event featuring the village's new specialty — a soil-filled "blind box" with local agricultural products inside.

Blind boxes, mostly containing cartoon figurines, are all the rage in China, with the size of the market expected to exceed 30 billion yuan (\$4.59 billion) by 2024, according to a recent industry report.

Yuanjiawan's blind box is 10 times bigger than ordinary ones, and buyers use a mini shovel to find out what exactly is hidden in the soil.

Apart from tomatoes, pumpkins and common vegetables, buyers can dig up edible sweet lilies, a rare breed cultivated in Yuanjiawan for over 100 years.

The unique garlic-shaped white lilies grow in soil with high-drainage capacity in areas 2,000 meters above sea level.

In the past, only the rich could afford the plant, which takes nine years to fully mature.

The village has 200 hectares of lily plantations, which generated revenue of 30 million yuan last year. The procedure involved in growing the lilies has been identified as an intangible cultural heritage of Gansu.

Gao came up with the blind box



In July, our lilies will bloom like fireworks. I'm looking forward to seeing tourists from near and far."

Gao Zuowang, former Party secretary of Yuanjiawan in Gansu province

idea after being inspired by his daughter, who is a fan of them. He wanted to attract more young consumers who rarely pay attention to traditional food items, despite their rich nutritional value.

It's not the first time Gao has adopted modern strategies to promote the village to the outside world. Under his guidance, Yuanjiawan started selling its products on Alibaba's Tmall in 2013 when poor local infrastructure limited the amount of sales that could be made through traditional channels.

Sales on Tmall have jumped from 100,000 yuan in 2014 to about 6 million yuan today, and the village has continued to develop more products such as lily porridge and chips. Gao Lianhai, director of a lily cultivation cooperative, said that almost 80 percent of its 5.5 million yuan in sales came from online stores last year.

The 43-year-old also upgraded his sales strategy by shooting

humorous videos and posting them on short-video platforms. "I gained more than 1,000 followers within two months," he said with pride.

The village has established a professional team in e-commerce management and operation. Besides quality, they also pay attention to branding, as all products are packed in specially designed paper boxes.

Many people working in the village who chose to stay put during the Spring Festival holiday sent gift boxes of lilies to their families, said Gao Yanling, manager of a marketing company.

Meanwhile, young customers are also on the rise.

Wang Ying, 23, said her friends from outside the area often ask her to courier them lily products, especially those packed in beautiful boxes.

From attractive packaging to blind boxes, Yuanjiawan's exploration of novel marketing strategies has greatly improved the lives of locals. Currently, 70 percent of the village's 280 households earn an annual income of more than 100,000 yuan, and each family owns at least one car.

Yuanjiawan is also developing lily-themed tourism by turning some plantations into scenic parks.

"In July, our lilies will bloom like fireworks. I'm looking forward to seeing tourists from near and far," Gao Zuowang said.

XINHUA

# 'Relic doctor' saves aging artifacts

XI'AN — While standing in a damp and moldy tomb, Yang Wenzong felt overwhelmed as he gazed at the murals that date back more than 1,200 years.

Despite the decay, the colors and lines of the frescoes were still recognizable, but some of the delicate paintings were incomplete due to theft and destruction by tomb raiders.

Yang and his team were conducting a salvage excavation in the 12-meter-deep tomb of Han Xiu, a well-known chancellor during the Tang Dynasty (618-907).

After preparation work, Yang used a brush to delicately reinforce and repair the incomplete paintings.

Since graduating from Northwest University in 1984, Yang, 58, has devoted himself to the protection and restoration of cultural relics. To him, cultural relics are like elderly patients and he is a doctor who treats them.

"The restoration of a tomb's murals starts by transferring them," Yang said. "Most of these paintings, like elderly patients, produce 'symptoms' including cracking and mildew, so a process of reinforcing is needed before conducting an 'operation'."

Restoring tomb murals is time-consuming and meticulous work.

A breeze or a bright light can cause damage to the murals. Some ancient tomb frescoes are well-preserved, but the cement materials used in the paintings becomes decomposed after thousands of years.

"Even a slight breath may cause the pigments to fall off, as the dyes are attached to the surface of the murals in the form of powder," he said.

Yang and his colleagues conduct-



Technicians restore an ancient fresco at the Shaanxi History Museum in Xi'an, Shaanxi province. ZHANG YUAN / CHINA NEWS SERVICE

ed thousands of trials and gradually formed what is now considered an industry standard in the protection and restoration of tomb frescoes.

The restoration of the Han Xiu tomb, which began in 2014, is an example of the country's heritage conservation experts trying to protect murals in a scientific and systematic way.

It took nearly two years to transfer the murals, and restoring them fully will take even longer; some are still being repaired.

"It's a profession that requires a great deal of patience and endurance," Yang said, adding that a single movement can be repeated thousands of times to remove dirt from a fresco without damaging a layer of paint.

Over the past three decades, Yang has renovated thousands of cultural relics, including ancient murals, bronzes, ceramics, porce-

lain, and gold and silver wares.

Many of them are big names. He participated in the work on the Bronze Chariot and Horse No. 2 unearthed in the mausoleum of Emperor Qinshihuang, world-renowned for the Terracotta Warriors.

Yang frequently walks around the exhibition hall of Tang Dynasty mural paintings that are on display in the Shaanxi History Museum.

The underground hall houses nearly 100 exhibits unearthed from the imperial tombs and the tombs of nobles. Yang has been involved in the restoration of many of the items.

"We are 'relic doctors'. When you realize what you are rescuing is priceless, a sense of accomplishment emerges," Yang said. "Nothing else can replace that feeling."

XINHUA

# Traditional operas increasingly staged in old courtyards



Kunqu Opera *The Peony Pavilion* is staged at a historic mansion in Suzhou, Jiangsu province, in October. HANG XINGWEI / XINHUA

KUNMING — For many lovers of traditional Kunqu Opera *The Peony Pavilion*, a century-old mansion in Kunming, capital of Yunnan province, has emerged as a go-to place to enjoy the classical romance.

Since 2018, 39 performances of the opera have been staged in Ma's Courtyard, a Bai ethnic-style mansion built in 1923, and were well-received among opera lovers.

Zheng Siqi, a sophomore at Yunnan University, has seen the show four times.

"Compared with theaters, I believe the very setting of the courtyard can help audiences bet-

ter understand characters' moods in the opera," Zheng said.

"It used to be a tradition for Chinese families to invite performers to put on operas in their courtyards during family celebrations," Zheng said. "Watching the same opera the way our ancestors did centuries ago evokes a deep sense of national identity."

Kunqu, a Chinese opera form with a history of hundreds of years, is listed by UNESCO as an intangible cultural heritage. The opera combines instrumental music, vocal performance, mime and dance.

For quite a long time, traditional opera had fallen out of favor with the younger generation, who were more attracted to modern offerings such as movies and digital entertainment.

In recent years, more and more producers have chosen to stage traditional operas in historical venues such as old courtyards, a move proven popular among young people who seek to reconnect with their cultural roots.

"I attribute the success of the performance in a large part to a retro feel created by both the opera and the historical venue," said Zhao Xiaocai, producer of *The Peony Pavilion*.

Like Kunqu, Gui Opera, a traditional opera form that originated

about 200 years ago in the city of Guilin, Guangxi Zhuang autonomous region, has been back in vogue in recent years.

In 2017, one such opera called *Theatrical Guilin* premiered in a historical courtyard in a tourist attraction in the city and immediately became a hit. "In 2019 alone, the play was staged more than 200 times at the courtyard, with an almost full house each time," said Zhou Qiang, a producer of the performance.

Liu Hui, director of a traditional opera research center in Guilin, said, "The combination of traditional opera and courtyards caters to the trend of retro fashion in China."

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