

Macao 澳門

**A Promising
New Year**

**NEW GENERATION
MEANS BUSINESS**

**IMPERIAL PORCELAIN,
PRICELESS LEGACY**

**GBA RAIL NETWORK:
PICKING UP SPEED**



Wishing you a Healthy and Happy Chinese New Year

Wynn 永利



Macao 澳門

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COVER IMAGE
The sun rises over Macao as the city welcomes a new year. Photo by Sean Hsu

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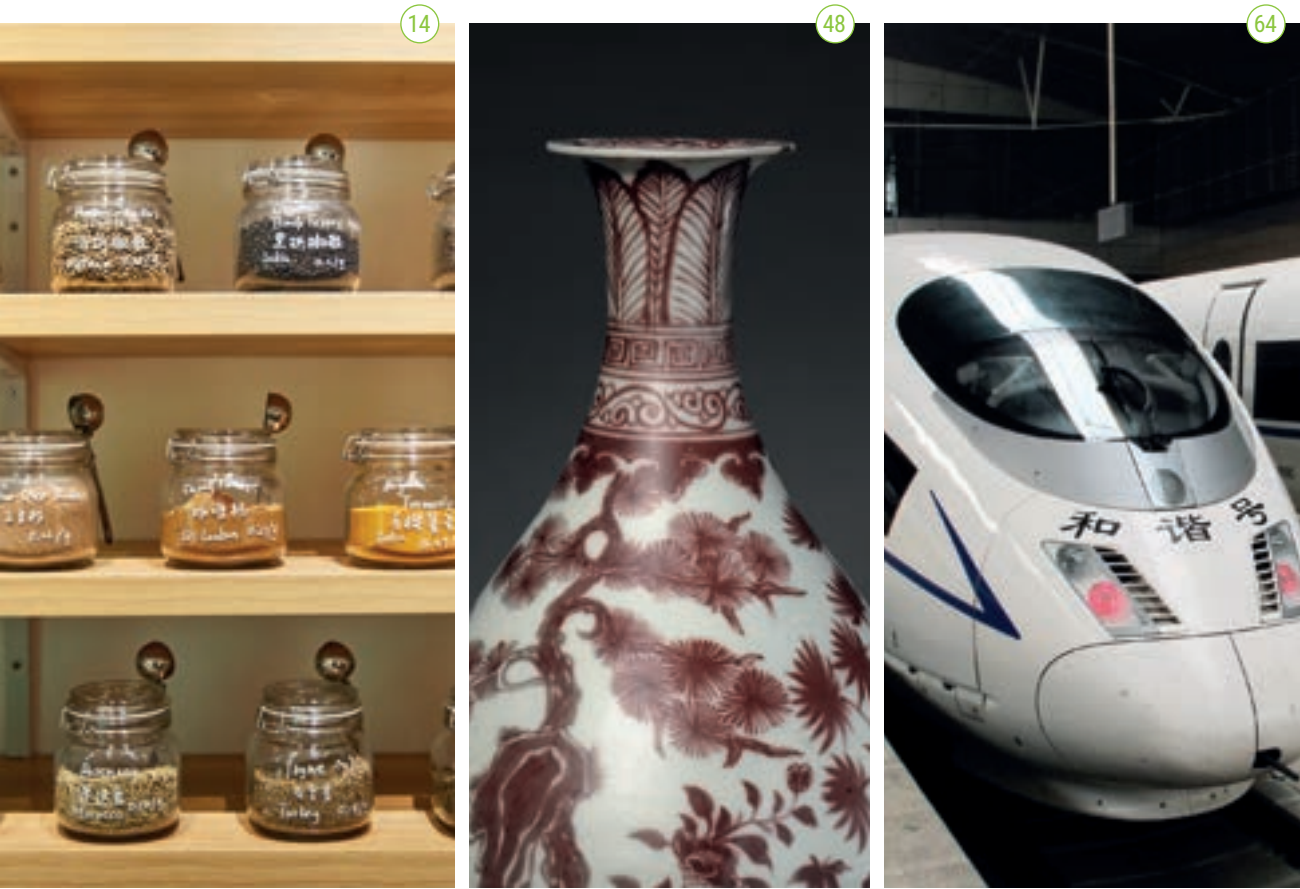
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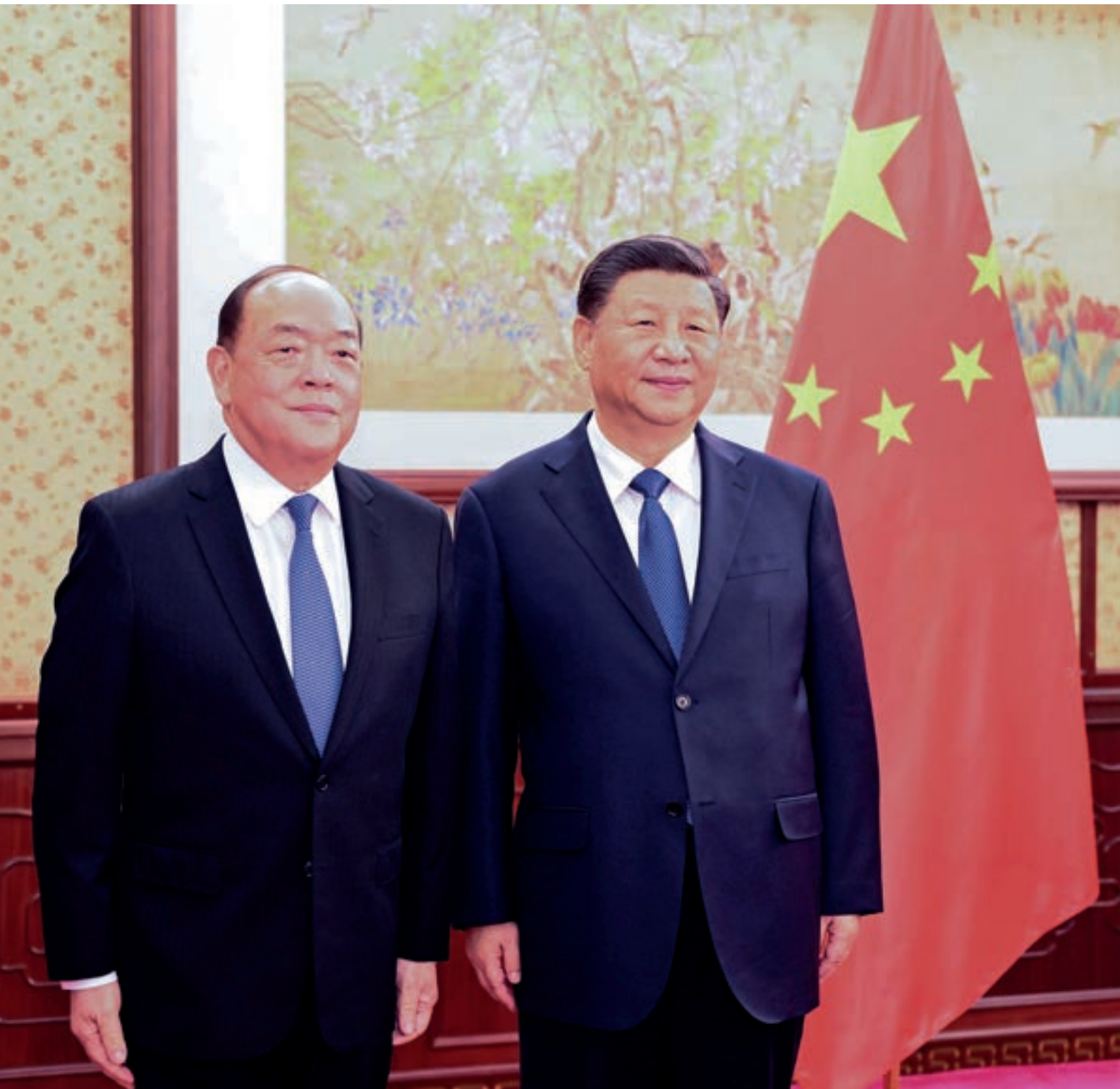
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POLITICS

Central Government praises Macao on economy and Covid efforts

Macao's chief executive and government performance acclaimed by central leadership during high-level meetings in Beijing.

Text **Christian Ritter**
Photos **Xinhua News Agency**

President Xi Jinping (right) praises Chief Executive Ho Iat Seng's governance of Macao

President Xi Jinping and Premier Li Keqiang expressed their support for Macao's efforts to diversify the city's economy and praised the local government for its Covid-19 control and prevention work during a visit to Beijing by Macao Chief Executive Ho Iat Seng in December 2021.

On his return, Chief Executive Ho said that President Xi and Premier Li had also highlighted the problem of Macao's overdependence on a single industry [gaming] and that the central government would continue to fully support Macao's diversification of its economy.

STABILITY AND MOMENTUM

President Xi Jinping praised Chief Executive Ho's governance of Macao, in particular his administration's development strategy and the effective prevention and control of the Covid-19 pandemic by implementing the "dynamic zero-Covid" policy.

The president met Ho at the central government's Zhongnanhai compound in Beijing, during which Ho reported on Macao's current situation and the work of the Macao Special Administrative Region's (MSAR) government.

President Xi underlined that Macao has been able to maintain stability and a strong development momentum despite the pandemic.

The president pointed out that Macao was also working hard to normalise cross-border travel between the mainland and Macao.

The pandemic had created tough challenges for the global economy, but also created a moment for reflection, Xi said. He added that, due to the Covid-19 pandemic, Macao's people had gained a clearer understanding of problems in the region's existing economic structure, resulting in a deeper consideration of its future development.

“

The central authorities fully acknowledge the work that Ho and the Macao SAR government have done.

– President Xi Jinping

Xi also pointed out that Macao's economy had enjoyed a gradual recovery in 2021 and that the local government had assisted disadvantaged groups and small businesses.

The president highlighted the fact that Macao's legal and executive mechanisms safeguarding national security had been upgraded, and that the 2021 Legislative Assembly elections had been held successfully, upholding the principle of “patriots governing Macao”.

The central government's General Plan for the Development of the Guangdong-Macao Intensive Cooperation Zone in Hengqin will offer a new path for Macao, furthering its integration into national development, President Xi said.

The central government will continue to support Macao accelerating its economic diversification, the leader said, adding that this approach implements the “One Country, Two Systems” principle with Macao characteristics.

“The central authorities fully acknowledge the work that Ho and the Macao SAR government have done,” President Xi said.

MEETING WITH PREMIER LI KEQIANG

In a second Beijing meeting, Premier Li Keqiang expressed to Chief Executive Ho the central government's appreciation of Ho and Macao's work regarding economic development, supporting people's wellbeing and its control of Covid-19.

The central government will continue to implement the policies of “One Country, Two Systems”, with “the people of Macao administering Macao”, and maintaining a high degree of autonomy for the region, Li said.

Li pledged to improve the region's systems for enforcing the National Constitution and Macao SAR's Basic Law. He said that the central government fully supports the chief executive in leading the Macao SAR government to administer the city based on the rule of law.

Li hoped that Macao would initiate coordination with national development strategies as well as participating in and advancing the Guangdong-Macao Intensive Cooperation Zone in Hengqin Island.

Premier Li also hoped that Macao would continue its efforts to curb the pandemic and improve people's livelihood. These efforts will

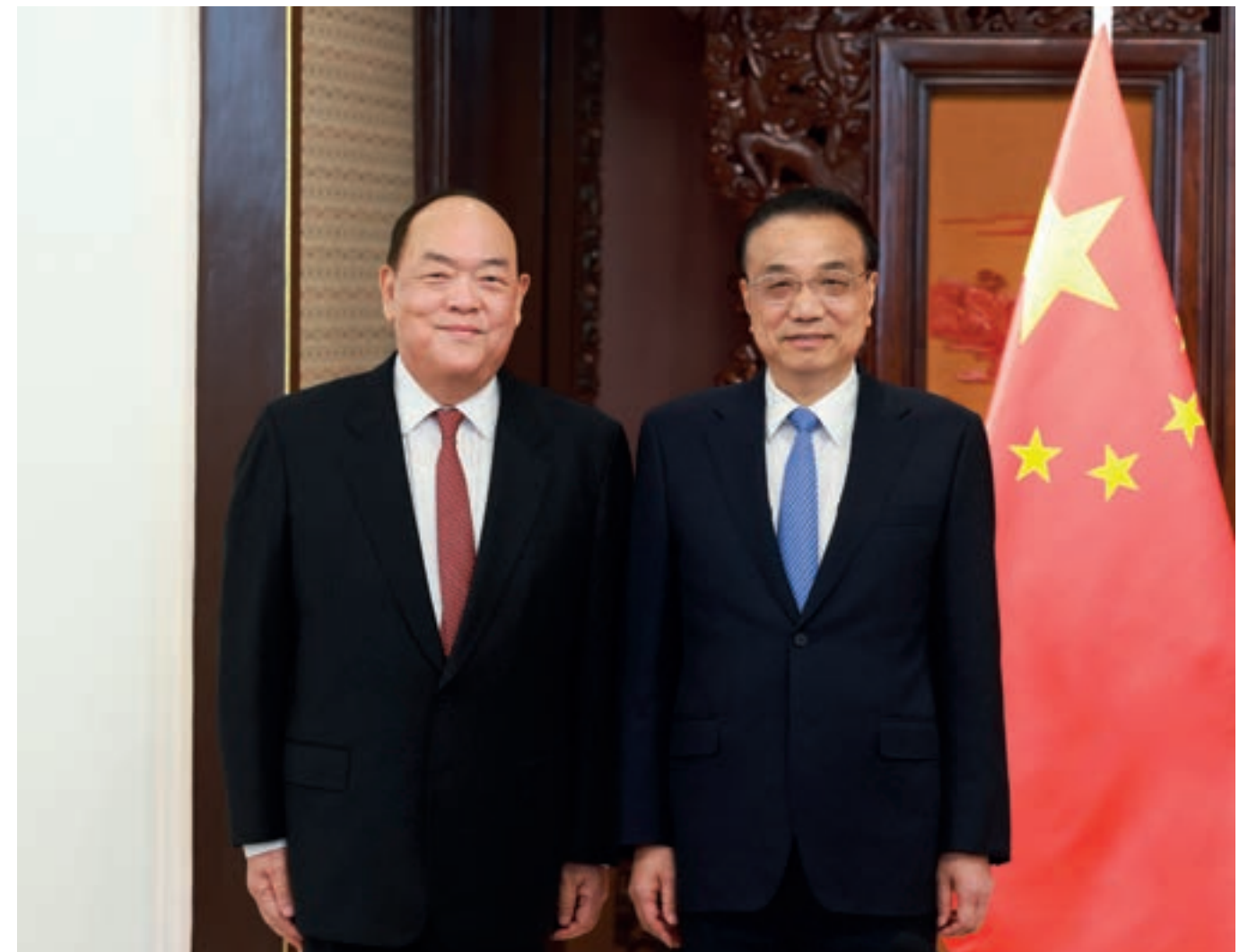
lay a solid foundation for lasting prosperity and stability for the region, according to Li.


Chief Executive Ho expressed appreciation to Premier Li for the central government's concern and support, adding that Macao would maintain effective control over the pandemic, ensure a stable economic recovery, and seize the opportunities offered by China's national development.

This was Ho's first official visit to Beijing since he became Macao's chief executive in December 2019. In 2020, the annual visit to Beijing was postponed due to the coronavirus restrictions and the meetings with President Xi and Premier Li took place by video.

President Xi last visited Macao for Chief Executive Ho's swearing-in ceremony in December 2019. ●

Premier Li Keqiang (right) and Chief Executive Ho Iat Seng discuss the city's development



A nighttime photograph of a cityscape, likely Macao, featuring several tall, brightly lit buildings and a complex highway interchange in the foreground. The buildings are illuminated with various colors, including blue, white, and yellow. The highway interchange is a multi-level structure with curved ramps and overpasses, also illuminated. The overall scene is a vibrant display of urban architecture and infrastructure.

ECONOMY

Macao to amend gaming licensing legislation

While Macao is seeking to develop alternative industries to diversify its economy, restructuring the city's gaming sector has been identified as a key mission for the government.

Text **Christian Ritter** and
Gonalo C sar de S 

Macao's Legislative Assembly passed the first draft of Macao's gaming law amendment bill on 24 January 2022. The amendments to Law No 16/2001 are intended to strengthen government oversight of the industry to protect social interests, defend national security and to ensure the gaming industry's future aligns with the city's broader plans for economic diversification and sustainable development.

Key points of the draft bill are that it caps the number of gaming concessions at six, cuts the length of licences to 10 years, extendable by three years in exceptional circumstances, and also curtails the role of junkets, restricting these gaming promoters to working with a single concessionaire.

However, Macao will keep its gross gaming revenue tax rate at 35 per cent, the same level as the past two decades. The additional payment of 4 per cent of casino operators' gross gaming revenues as "contributions" (dues) to the government's social, cultural and other activities will also remain unchanged.

Successful gaming concessionaires will also be assessed by the Gaming Inspection and Coordination Bureau (DICJ) every three years to ensure that they are complying with all the obligations of their licence. Concessionaires must also report any financial operations which go beyond those stipulated in their contracts to the Macao SAR chief executive, before they take place.

Secretary for Administration and Justice Cheong Weng Chon outlined the details of a proposed bill to amend the 2001 Gaming Industry Law in January after a 45-day public consultation on the gaming sector, which is Macao's largest industry and major source of tax revenue.

Macao's current gaming industry consists of 42 casinos run by the three concessionaires and three sub-concessionaires

The government is determined to control the size of the gaming industry to ensure that it benefits Macao as a whole. The sector remains the most important element of Macao's economy although the government is committed to diversifying development. Additional concerns have focused on ensuring that the industry benefits the wider social interests of Macao and also conforms to the needs of national security.

RESTRUCTURING THE GAMING SECTOR

Macao's gaming industry represents the single most important segment of the city's economy in terms of employment (about 12 per cent of the total workforce in mid-2021), taxation and contribution to gross domestic product (GDP). However, for many years, both the central government and Macao government have warned of the danger of over-reliance on this sector, which has been illustrated by the recent impact of Covid-19 restrictions on the city's economy.

The gaming sector contributed 51 per cent of Macao's GDP in pre-pandemic 2019.

In 2020, its GDP share was down to 21.3 per cent due to the impact of the Covid-19 pandemic on Macao's economy, according to Statistics and Census Service data.

The new gaming bill proposes that the government can grant up to six gaming concessions by public and open tender for a period of 10 years, with a possible three-year extension, whereas the existing law allows gaming concessions for up to

20 years, with the possibility of an extension to 25 years.

Macao has established itself as a pioneer of integrated resorts – a concept that brings together casinos with substantial hotel accommodation, retail, conference and exhibition facilities, dining, and entertainment venues within a single complex. However, gaming revenue has always been the most lucrative one and the Macao government has signalled for some time that operators must focus on other revenue streams, creating a more diverse range of attractions.

Currently, Macao's gaming industry has three concessionaires

(SJM Resorts, S.A.; Wynn Resorts (Macao), S.A.; Galaxy Casino, S.A.) and three sub-concessionaires (Venetian Macau Limited; MGM Grand Paradise, S.A.; Melco Resorts (Macao), S.A.), with each full concessionaire selling one sub-concession. However, it is now proposed that sub-concessions, by which a concessionaire partners with another operator, will be prohibited. The new simplified structure allows for six concessionaires, the same number as current individual operators. Cheong said that each of Macao's current six gaming operators, three of which have US business links,

have the chance to win a licence in the upcoming tender.

According to the latest available data from the Gaming Inspection and Coordination Bureau Macao's gaming industry consists of 42 casinos run by the three concessionaires and three sub-concessionaires, with 6,302 gaming tables and 11,449 slot machines.

CONCESSIONAIRE CAPITAL

Secretary Cheong also said that Macao's future gaming concessionaires must have a minimum capital stock of MOP

5 billion (US\$625 million) instead of the previous level of MOP 200 million (US\$25 million).

He also said that all casinos must be located in real estate owned by the concessionaires.

Gaming operators' so-called satellite casinos, which number 18 and are housed in buildings that they do not own, will be given three years to comply with the process.

The bill also proposes that concessionaires' managing director must be a Macao permanent resident and hold at least 15 per cent of their company's capital, compared with the present 10 per cent minimum.



All images on this spread courtesy of Government Information Bureau



Macao Assembly debating the new bill to amend the 2001 Gaming Industry Law

(Opposite page) Secretary for Administration and Justice Cheong Weng Chon

Under the new bill, in the future, gaming concessionaires can only list up to 30 per cent of their shares on the Hong Kong Stock Exchange.

Cheong said that all bids for future gaming concessions must meet a range of conditions, including being in the Macao public interest, safeguarding national security and the city's drive for economic diversification.

The concessions must also ensure the gaming industry's sustainable development and promote corporate responsibility.

The policy secretary noted that the bill will strengthen government supervision of the gaming industry, pointing out that casino operators "are not common companies."

Gaming experts have pointed out that Macao's casino permits are not conventional business licences but concessions that, to a certain degree, are similar to those granted to public utilities by the government.

No government representatives will sit on the concessionaires' management boards although the government had initially floated this possibility during its public consultation process last year. However, the policy secretary stressed that the gaming concessionaires will have to inform the government regularly and in detail on any major financial issues.

The policy secretary stressed that the concessionaires are barred from leasing some of their gaming facilities out to others. Currently, many so-called VIP rooms for high-stakes gamblers are said to be leased out to second-party junket operators.

Cheong said that the government planned to introduce a separate bill on the tighter supervision of junket operators, whose operations are currently regulated by an administrative regulation (by-law) only.

Cheong also repeated the point that the bill aims for a "healthier" development of the gaming industry in line with Macao's public

interest, the national interest and the city's ongoing efforts to diversify its economy, which continues to be marked by its overdependence on gaming.

The draft legislation, which has been discussed by the government's top advisory Executive Council, must now be debated and voted on by the Macao Legislative Assembly (AL) for amendment and final vote by lawmakers.

Cheong said the government hoped that the Legislative Assembly would pass the bill as soon as possible, taking into consideration that the three gaming concessions and three sub-concessions will expire on 26 June and that the government will need to initiate a tender process to invite bids for the concessions. Cheong said that the tendering process could be postponed if necessary.

The proposed new legislation comes at a time when the gaming sector has reported improved figures year on year, although they fall short of the city's historic highs. DICJ reported in January 2022 that Macao's gross gaming revenue (GGR) rose 43.7 per cent to MOP 86.8 billion (US\$10.8 billion) during 2021.

That figure was a marked improvement on 2020, when GGR plummeted 79.3 per cent to MOP 60.4 billion (US\$7.5 billion) due to the Covid-19 pandemic. In pre-pandemic 2019, GGR dropped 3.4 per cent year-on-year to MOP 292.4 billion (US\$36.4 billion).

The proposed bill has been broadly welcomed as a balanced approach to meeting the needs of the business interests of current and future operators as well as protecting the overall interests of Macao's social and economic development.

The changes clarify the tightening of regulations but also allow sufficient flexibility in tendering timetables for operators to adjust their business model as needed.

The proposals put an end to a prolonged period of speculation about the future of gaming in the city, speculation that greatly increased as a result of the Covid-19 pandemic. The government's public consultation initiative allowed a forum for local people to voice their views and the bill has also been welcomed by the six current operators for consolidating the industry's position in the city's development. The proposed legislation, therefore, appears to have created a consensus about how Macao's gaming sector can move forward as a healthy and sustainable component of the region's overall economic growth for decades to come. ●

Casinos in the
Macao Peninsula



BUSINESS

New generation means business

Macao's changing business environment is offering a range of exciting opportunities for young business people. We speak to three of them.

Text **Tony Lai**
Photos **António Sanmarful**

An aerial shot of
Macao's NAPE area

Opening a snack bar, cafe, restaurant or clothing store used to be among the first choices of many local young people starting their own business, but in recent years, the options have multiplied.

From the Young Entrepreneurs Aid Scheme to the establishment of the Macao Young Entrepreneur Incubation Centre, the Macao government has introduced several programmes in the past few years to promote the city's economic diversification. These measures have improved the environment for innovation and entrepreneurship in the city by encouraging entrepreneurs to think creatively and explore new business opportunities.

We talk to three entrepreneurs who are following the 'Macao dream'

and expressing the tremendous vitality and imagination of the city's younger generation of corporate pioneers.

PAYBOY – A BIG CHANGE FOR SMALL CHANGE

Most people from time to time accumulate piles of low-denomination coins in their homes after emptying their pockets and purses of small change from supermarkets, convenience stores or restaurants. On their own, they are too awkward to carry around endlessly for the next low-cost purchase and it's too time consuming to queue up at the bank to exchange for notes. One by one, the pile of coins gradually gets bigger.



Payboy founder Oscar Leung launched the service in 2021

Oscar Leung, 29-year-old local entrepreneur, recognised this problem and founded Payboy, which develops self-service coin-collection machines. This not only releases the value of these hoards of coins but it also optimises the circulation of small change in the market.

Unlike the current coin conversion service offered by banks, Leung describes Payboy's service as "simpler". While most banks require staff to painstakingly sort and count the coins by hand, Payboy allows users to simply pour all the coins into the machine, which instantly recognises and calculates their value. Users can then choose to convert the amount into e-vouchers for merchant purchases or donate to local charities.

Since the launch of the first Payboy machine in a large shopping mall in Taipa in mid-January 2021, the startup has added eight more machines across town, totalling nine Payboy machines. They collect all denominations of Macao pataca and Hong Kong dollar coins.

Payboy's three machines at the Original Technology stores in the city have since collected more than 1.2 million coins with about 60 per cent of them being MOP ten-cent coins. "The main purpose is to help the public to rediscover the value of coins. They may consider that the amount of coins accumulated is small, but the value is often greater than people expect," says Leung.

INEVITABLE SETBACKS IN ENTREPRENEURSHIP

To encourage the public to exchange coins, the Payboy machines are free of charge and the current revenue model is mainly based on the commission of merchants, as the machines attract people to the store.

"One of the most difficult things to do was to talk to merchants about setting up the machine because they didn't think it would generate much revenue for them. But after the first machine was put into use, more and more merchants were interested."

Before starting his own business, Leung worked as an analyst at a local company, where his job included checking the daily news. "One day, I noticed a news story about a coin-changing machine launched by a startup company in Hong Kong. I remembered that I had seen a similar machine when I was studying in the United States. I thought there was room for Macao to promote related businesses."

Inspired by this, he contacted the Hong Kong-based company and became its representative in Macao in 2017. However, due to the Covid-19 pandemic and other factors, he decided to take on this venture on his own under the brand name Payboy.

"In recent years, there has been a boom in entrepreneurship. Whether it's government incubators or [private] accelerators, young people have more ideas to start their businesses." Looking back on his entrepreneurial journey, there were bumps along the road, but Leung is glad to have had the support of different government departments and units, such as the Economic and

Technological Development Bureau, Monetary Authority of Macao, Science and Technology Development Fund and the Macao Trade and Investment Promotion Institute.

CASH CIRCULATION

Despite the rise of electronic payment, particularly due to Covid-19, Leung says that cash will remain one of the main methods of transactions in the future. "The pandemic has fostered citizen's usage of electronic payments and they use cash less often than before, but this has simply strengthened the understanding of the importance of coin recycling."

In less than a year, he has also successfully partnered with Bank of China and Banco Nacional Ultramarino to run coin-collection machines for them. With six machines spread across six branches, users

are now able to convert their coins directly into notes, which he has noticed has significantly increased user interest.

In terms of Macao's market size, Leung expects 15-20 Payboy machines are needed to meet demand but this year he hopes to expand to transport hubs such as the border gate to make the process even more seamless for tourists so when they depart Macao, they aren't carrying a pocketful of coins with them.

He is also working towards transferring the money directly into bank accounts in the future – essentially integrating with the government's fast payment system. "We hope to develop financial self-service devices in Macao and to provide more services such as self-payment, self-deposit and self-checkout," Leung says.



The Payboy machine collects both Patacas and Hong Kong Dollars



Rachel Wong began to notice how much waste our society generates after having her first child, leading her to open zero-waste shop Less is More in 2019

LESS IS MORE – “NAKED SHOPPING”

Concepts such as Danshari (a Japanese word which means “decluttering”) and minimalism have swept across the world in recent years, encouraging people to re-examine their relationships and other personal matters as well as to reflect on what they really want in life and to abandon unnecessary baggage. 32-year-old Rachel Wong is just one example. In addition to putting the

philosophy into practice in her own life, she also started a business, Less is More, to popularise her beliefs and lifestyle to reduce unnecessary waste in the city.

Located in Rua Nova à Guia, Less is More opened in May 2019 and focuses on selling organic health products, such as natural food, fruit vinegar and oil, spices and cleansing skincare products. Unlike traditional stores, products are sold packaging-free to reduce unnecessary wrapping

reflect on why we all generate so much garbage in our lives, so I hope to implement minimalism in my own life. However, it is not easy to live that kind of life in Macao. For instance, products in supermarkets usually have multi-layer packaging,” she says. Wong was inspired to start her own business when she came across the concept of “shop naked” online. “Before I opened my store, I worked in the make-up and skin-care industry and later became a stay-at-home mum. At that time, I didn’t have the urge to start a business.”

FROM ZERO TO ONE

From the store name and logo, to the location of the store, daily operations and inventory management, everything was a new experience for this young entrepreneur. “Every day was a challenge, because I didn’t have the relevant experience, so I had to figure everything out myself,” Wong admits.

However, the business was disrupted by Covid-19 and the store was closed for more than a month. After that, the business had to rely on regular customers’ orders for a period of time. Today, thanks to Macao’s remarkable results in the fight against the pandemic, the business volume of the startup returned to its pre-pandemic level.

In addition, Wong plans to add

an online sales platform for the store soon, so that customers can buy their desired products without leaving home. She also hopes to hold regular workshops on healthy eating and natural products to promote a healthy living culture and deepen the connection between customers and the shop.

GATHERING COMPANIONS

Three years ago, Less is More was one of only two “naked selling stores” in the city. “Many people would curiously hang around outside the store when we first opened, so we had to go out and talk to them about the shopping model and further their understanding of it.”

The store has seen the gradual emergence of a few competitors. Wong also commented on the two or three “naked selling stores” that have recently opened: “The aim of these stores is to inspire people to simplify life and focus on what they love and what’s important, so I’m glad to see this lifestyle becoming more popular.”

“My ultimate goal is of course to make waste reduction a daily habit for people in Macao. Not only for our kind of shops, but also for supermarkets and other large chain stores that can try ‘naked selling,’” Wong says.

“

Startups need capital, both at the beginning and in the middle and later stages of development.

– Marco Duarte Rizzolio

FOLLOW ME MACAU – THE BUSINESS OF TRAVEL

Macao's business environment not only encourages more local young people to pursue their dreams, but also attracts people from overseas to explore opportunities in Macao. Portuguese entrepreneur Marco Duarte Rizzolio took advantage of Macao's booming tourism industry, for example. The entrepreneur developed and launched Follow Me Macau, a one-stop booking platform for Macao travel experiences, opening a new chapter in his career.

With years of financial experience in Spain, Italy and Brazil, 48-year-old Rizzolio moved to Macao seven years ago with his wife and family. “Before my departure, I did a lot of research on Macao and I thought there was a good opportunity to grab [in the tourism market].” After a stint at a gaming company, he co-founded Follow Me Macau in 2017 with his business partner, offering a one-stop guide to Macao allowing travellers to book dining, shopping, leisure, cultural, sporting and other activities on the platform.

The platform initially operated on a B2C (business-to-customer) basis, but Rizzolio gradually saw more room for expansion in corporate events and incentive travel (sometimes referred to as MICE – Meetings, Incentives, Conferences and Exhibitions).

“Every year [prior to the Covid-19 pandemic], a number of visitors come to Macao for MICE. These business tourists usually stay in Macao for three to four days. In addition to participating in

exhibitions and events, the organisers or their companies will reserve a day for them in Macao for team-building activities. So, about six months to a year after we launched, we changed our business strategy a little bit. We focused more on a B2B (business-to-business) model, which means planning activities for different companies,” Rizzolio says.

This change quickly received a positive response from the market; the platform has successfully attracted companies from Singapore, India, mainland China as well as Hong Kong and Taiwan. Prior to the pandemic, Follow Me Macau had an average of two clients per month that engaged them to put together corporate events.

PANDEMIC CHALLENGES

However, the pandemic has disrupted this progress, with travel restrictions and quarantine measures having a major impact. “Since the outbreak, business has come to a complete halt,” Rizzolio said. “There have been no phone calls or emails.” Although the outbreaks have been controlled in the mainland and Macao, and some travel restrictions between the two places have been eased, entry to Macao from other places remains severely restricted.

“A small number of companies started inquiring about our service in February or March last year, but the business situation is still poor.” Rizzolio expects to see an upturn in his business in 2022 due to wider takeup of vaccinations and further relaxation of travel restrictions. At this stage, Rizzolio is focusing on reducing costs, as well as developing and preparing new products and

services in response to the latest market trends.

In this difficult time, the business fortunately has the strong backing of the Macao Young Entrepreneurs Incubation Centre, which was funded and established by the Macao government at the end of 2017.

The centre provides a 24-hour shared workspace for Macao entrepreneurs, as well as diversified support services such as professional consultations, training and coaching, access to expert advisors, road-show marketing and investor-investee matching.

Follow Me Macau was one of the first members of the centre and Rizzolio said that he had been fortunate enough to visit other cities in the Greater Bay Area through the centre's exchange activities and entrepreneurship competitions to expand his network and raise his business to the next level.

Compared with neighbouring cities, Rizzolio, who is also a guest lecturer at the City University of Macau, says that the entrepreneurial environment in Macao is still in its infancy, but with the strong promotion of the local government and the rich resources of the mainland, especially the Greater Bay Area, the entrepreneurial ecosystem will gradually improve.

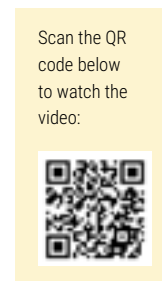
“Startups need capital, both at the beginning and in the middle and later stages of development. While Macao doesn't have a complete capital market, Hong Kong, Guangzhou and Shenzhen have a complete system, so the focus is on how to connect and share these resources.”

Marco Duarte Rizzolio
co-founded Follow Me
Macao with his business
partner in 2017





The sign "Change Starts Here" greets customers as soon as they enter Rachel Wong's Less is More store



"China is a dream market for startups and many Portuguese-speaking startups want a piece of the pie, so Macao can serve as a bridge to attract startups from relevant regions to Macao," he adds.

Macao's drive for domestic economic diversification and integration into the Chinese national economy provides a wider spectrum of business opportunities today for entrepreneurs based in the city.

Leung, Wong and Rizzolio represent very different business sectors, ranging from finance, to no-frills retail and travel apps – the very definition of diversity – but have also brought insights from their own lives, whether spotting a business model overseas, having international corporate experience, or simply

going through a change in family life cycle, these entrepreneurs have brought a new energy to Macao's entrepreneurial environment.

It also raises the bar for creativity and ingenuity in developing fresh industries and services. This is a challenge the new generation of business people are keen to take up.

However, these entrepreneurs are not alone, they have the strong backing of the Macao government through funding and support programmes of varying kinds. In a sense, Macao's entrepreneurial environment is itself in its early stages, a period full of excitement and enthusiasm combined with imagination and growing expertise but most of all a determination to succeed. ●

投資E道

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The **invest** here website is officially launched!

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Calculator of taxes and different fees, such as the incorporation fee, salaries tax and profits tax.

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SOCIAL AFFAIRS

Healing in harmony

Music helps those affected by a wide range of mental and physical concerns. Therapist Christal Chiang has pioneered the practice in Macao.

Text **Rafelle Allego**
Photos **Denzel Calangi**

Christal Chiang has been sharing music therapy in Macao since 2008

Music's power to stir or still human emotions was already noticed in ancient times. The Chinese philosopher Confucius wrote: "Music produces a kind of pleasure which human nature cannot do without." Whether making music or simply listening to it has a power to bring us together, lift our spirits, calm our nerves and soothe our wounds. Its healing effects in a clinical setting were recognised at least as early as 1789, when music therapy emerged in the US.

According to the American Music Therapy Association, the practice harnesses music-based treatments to help people with everything from developmental issues to depression, insomnia, substance abuse, mood disorders and rehabilitation. It is particularly helpful for patients with dementia or Parkinson's disease, as well as children with learning disabilities or behavioural concerns.

Local practitioner 37-year-old Christal Chiang is one of just two music therapists in Macao. She provides therapy sessions for those in need, especially children and older adults. Having played piano as a child, Chiang understood the power of music and knew it could help people. "I found more connections between music and life – with the rhythm, melody, harmony, everything," she says.

She decided to study music therapy and psychology. Chiang, who has

worked in the field for 13 years, first encountered this style of therapy in 2003 at Michigan State University in the US, where she had enrolled after finishing her education in Macao at Sacred Heart Canossian College.

After completing her dual Bachelor of Arts in Music Therapy and Psychology in 2008, she sat for the US Certification Board for Music Therapists exam and became a board certified music therapist. This US certificate is recognised in countries and territories without music therapy training such as Hong Kong, Japan and Singapore.

However, she's unable to practice clinically in Macao as music therapy is not recognised among Macao's list of 15 qualified medical professional disciplines.

STRIKING A CHORD

Chiang returned home in 2008 and convinced the Concordia School for Special Education in NAPE that music therapy could help students. The school created a role for Chiang, who soon began counselling children with autism and attention-deficit hyperactivity disorder (ADHD).

While her US certification is unrecognised in Macao for clinical services, she is able to conduct short-term, group therapy projects via intermediary groups.



At Concordia, she helped her students lengthen their attention spans and improve their cognitive abilities through music. For example, Chiang uses the melody and changes the words of the popular children's song "The Muffin Man" to encourage children to choose coloured bells. This interactive exercise not only helped the children expand their vocabulary, but also improved their engagement and focus.

Chiang left Macao to work as a musical therapist with neurological patients at Singapore General Hospital for three years, then rejoined the school in 2014. Soon

after, she began teaching music students at the Macao Polytechnic Institute, including about music therapy.

She also leads music therapy with local associations and NGOs, such as the General Union of Neighbourhood Associations of Macao (UGAMM). At UGAMM's day centres, where older residents can connect and find support, she helps those with Parkinson's disease and dementia via group sessions.

Chiang also helps patients recover from strokes by organising choirs at the day centre. Strokes can

weaken the muscles around the vocal cords and affect coordination and communication, rendering speech slow and laborious – but singing can help.

"Specifically, if they have Broca's aphasia [damage to the areas of the brain responsible for speech and motor movements], a typical characteristic of this group is losing fluid speech but retaining the ability to sing. This all comes down to the neurological system," Chiang explains.

When used in tandem with speech and language therapy, singing can speed individuals'



physical recovery, reduce stress, improve mental agility and rebuild self-esteem. Before the pandemic, the choir performed popular 'oldies' dating from their youth at least twice a year for family and friends. Not only did the choir offer participants a sense of accomplishment, but Chiang says it also provided a fully supportive social network.

SPECIAL EDUCATION

Musical therapy can prove to be highly beneficial for young people, too. Music activates the brain's temporal and prefrontal cortices,

which are responsible for encoding memory and guiding complex behaviours, respectively.

For example, when people learn song lyrics, even simple ones, it activates cognitive functions, while learning to play instruments improves coordination, strength, patience, communication and mood.

Chiang primarily helps children with special needs and developmental delays at inclusive education programmes and nonprofit organisations, including the Fuhong Society of Macau, a local NGO supporting individuals with mental health conditions.

The choir at General Union of Neighbourhood Associations of Macao's Centro de Cuidados Especiais Rejuvenescer helps people who have had strokes or have dementia and Parkinson's disease rebuild self-esteem and connections

(Opposite page) During a music therapy group session at the Centro de Apoio Vocacional Kai Lung for members of Macau Association for Intellectual Development Services, Chiang encourages participants to clap to the beat

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“Music is non-threatening, non-pharmaceutical and non-invasive.”

– Christal Chiang

At the Fuhong Society’s centre near Nam Van Lake, where Chiang provides group sessions for children under six, she incorporates a mix of instruments, singing and movements. “Some [children with special needs] have difficulties sitting down and focusing for long periods of time,” she says. “But in music groups, they participate better because they find it more fun.”

Musical activities with colours, numbers, steps and lyrics keep children engaged, while the act of singing and learning lyrics also supports speech development, says Chiang. For some children, it can be hard to process everyday language because adults talk quickly. But, when listening to lyrics, they have more time to process and understand each sentence.

Musical therapy groups also provide a safe, positive space for children to work on social skills and collaboration, learn patience and work in teams. “Music can’t be made alone,” says Chiang. “When we play together, we have to wait for each other so we can make beautiful music.”

While it might appear like the children are simply taking a music

class, it’s not that simple. Conventional music is about quality and performance skills, whereas music therapy focuses on developmental goals and evaluating progress, says Chiang.

Sometimes the goal will be to improve a child’s social skills such as focus, eye contact, teamwork and confidence. At other times, Chiang aims to enhance speech and cognitive skills – including learning the ABCs, colours and numbers – or physical skills, such as coordination and strength.

Chiang is collecting data at Escola de Santa Madalena, where she provides music therapy, to document the benefits of music groups in Macao classrooms, and add to the growing body of research on the subject. “In these few months, we’ve seen some improvements among students in the schools’ music therapy session group,” she says, adding that results should be published this spring.

“Music is non-threatening, non-pharmaceutical and non-invasive,” says Chiang, who hopes to share this versatile practice of musical therapy with more people. “This makes it safe to apply in medical settings, rehabilitation centres, schools, nursing homes – as well as in psychiatric settings.”

And, since so many people love music, patients often find it to be a social, pleasant way to heal and learn. “Music therapy is not paracetamol,” adds Chiang. “It’s a humanistic approach.” ●

Using instruments and voice, Chiang works with service users to help them improve their overall wellbeing and reach personal goals





SOCIAL AFFAIRS

Reaching global goals through local action

Spurred into action by first-hand experience of the pandemic, a pair of young Macao women set up Genervision House to promote the United Nations's Sustainable Development Goals within their own community.

Text **Rafelle Allego**
Photos courtesy of
Genervision House

Genervision House arranged a tour of Oscar Farm in Coloane with the Society of Food and Environmental Health to discuss food waste and sustainability

A chance encounter online between two overseas Macao students led to a dynamic partnership – as the two young women pooled their skills to educate their home city about sustainable development and encourage a new generation to step forward.

The local NGO Genervision was founded by two students in January 2021. Their mission is to share knowledge and promote sustainable development through events, educational videos, field trips and cross-sector collaboration.

The group's work has already won international recognition. In October 2021, the United Nations Sustainable Development Solutions Network Youth (SDSN Youth) invited Genervision House to join, the first group in Macao to do so.

After completing her UNHCR internship in Jordan, Christy Un headed back to Macao where the idea of creating Genervision began taking shape.

(Opposite page) Arianna U did her UNESCO internship one year before Christy Un did her UNHCR internship.



With 750 member organisations across 127 countries, the UN programme empowers young people to plan, advocate and work towards achieving the UN's 17 Sustainable Development Goals (SDGs).

"It feels exciting to be part of [SDSN Youth] because we can do more with international resources and assistance," says 24-year-old Genervision House co-founder and Macao resident Christy Un, her eyes sparkling with excitement. "We want to collaborate with different experts worldwide so we can bring the best practices to Macao, as well as share our stories with a global audience."

NO BETTER TIME

While starting an association during the Covid-19 pandemic posed a number of challenges, Un and 27-year-old co-founder Arianna U say the devastation and uncertainty around the globe motivated them to act.

In the years leading up to Genervision, U, also a Macao resident, had worked for a year in Mozambique as one of the first UNESCO interns from Macao, specialising in communications. Meanwhile, Un studied for a Politics and International Relations BSc at

the London School of Economics and Political Science before joining a UNHCR internship in Jordan, assisting refugees from Syria.

The experience was a powerful one. "As I worked inside the refugee camp on a daily basis, I interacted with refugees and learned about their respective stories. From these interactions, I learned more about Syrian culture, refugees' difficulties as well as their determination to create possibilities for themselves."

Though they hadn't met in person, Un discovered her future teammate's blog online and reached out to her in 2019.

They travelled together in Jordan and Egypt in 2020. U then continued her international trip alone before both had to return to Macao due to the pandemic. For several months before their return, Jordan was under a stringent nationwide curfew, with air-raid sirens echoing through the capital Amman every day, Un recalls. The country also suffered from a supply shortage at the beginning of the pandemic and Un recalls eating only warmed-up frozen meals for weeks on end, apart from occasional fresh vegetables delivered by her kind landlord.

"It was also very difficult to obtain real-time information as the situation unfolded rapidly and changed every day," Un says, adding how grateful she is to her Jordanian friends who supported and assisted her. "It was also not easy to fly back as flights kept being cancelled." Eventually, she managed to get on a Macao-bound plane, where she was amazed to discover that U, who had been in Norway, was a fellow passenger.

During quarantine, they constantly messaged each other and made video calls and so their idea for Genervision House took shape. The pair chose the name "Genervision" to signal that it's time for the next generation to step up and create a more sustainable world, they explain.

After quarantine, both young women took up new jobs. Un worked as a research assistant for the United Nations University Institute in Macau's Cyber Resilience project, while U freelanced as a communication consultant. U is

now pursuing a PhD in international relations from Tsinghua University in Beijing. But they continue to plan and invest in Genervision House in their free time.

"We really want more people to learn about the UN SDGs, from school students to corporates," says Un, who is the association's chief operating officer while still working full-time. "At first, it was just the two of us but then, in less than a year, we now have 10 core members, all of whom are volunteers," she says, adding that some work virtually while others reside in Macao.



Genervision House founders Christy Un and Arianna U spread their message at a UN Sustainable Development Goals workshop at the University of Macau

(Inset) U accepts a generous donation from Wynn Macau during the Guangdong-Hong Kong-Macao Commemoration Festival on World Environment Day in June



Gender Equality, Reduced Inequality, Climate Action, and

WHAT ARE THE SDGS?

At the turn of the millennium, the UN established eight Millennium Development Goals (MDGs) to create a more equitable, healthier and more sustainable future for all. To build on the MDGs' momentum, the UN proposed an expanded list of 17 goals in July 2014 that outlined global targets for 2030. Some of the goals focus on tackling poverty – such as No Poverty, Zero Hunger, Quality Education and Reduced Inequality – while others tackle employment, consumption, health, wellbeing, climate action, clean water and more.

While it intends to address all the 17 SDGs in Macao in the future, Genervision House currently focuses on five areas: Quality Education,

Sustainable Cities and Communities.

While all the goals are important, the pair believe these specific SDGs are the most essential for Macao. For example, the UN's "Sustainable Cities and Communities" goal focuses on making human habitats "inclusive, safe, resilient and sustainable", which Un and U say is directly relevant to Macao's urban lifestyle.

"Macao faces floods and typhoons," says Un, of the importance of addressing this SDG. The group also supports "smart city" initiatives because smart technology has the power to improve infrastructure, communication, safety and sustainability. In addition, if Macao evolves into a smart city, the pair believes there would be greater transparency for planning,

implementing and tracking the progress of Macao's sustainability. For this reason, the group is learning and sharing knowledge about the technology needed to make Macao a smart city.

In the same vein, the pair also raises awareness about cybercrimes, because they believe Macao needs to protect citizens and companies. "This relates to the 'resilience' of the city," Un says. "It also has many societal, environmental and governance benefits."

A SPIRIT OF COLLABORATION

Achieving the SDGs by 2030 will require cooperation between the government, private sector and local people. All too aware of the collective efforts needed, Genervision House holds workshops for corporations and policymakers, where the NGO demonstrates how to implement SDGs holistically.



Image courtesy of the United Nations

In the past 12 months, Genervision House held workshops at Wynn Macau and Sands China. Staff from both integrated resorts participated in interactive role-playing discussions and learned about the companies' best practices relating to SDGs.

At Wynn Macau, its sustainability efforts combine environmental protection with community care. Through an innovative approach, it contributes to the SDGs by donating its surplus uneaten fruit to the Fuhong Society of Macau where they are turned into fruit tea.

At Sands China, they discussed all the sustainable development systems already in place within the company, with their workshop session ending with a call to action for sustainable business and personal change.

By forging partnerships across different sectors, Genervision House hopes to reach more people. It also advocates a three-pronged approach: raising awareness, creating a diverse

community of like-minded people and working with policymakers.

"Everyone has a role to play, and raising awareness from different corners of society is just the first step," says 23-year-old Gladys Ng, the Environmental, Social and Governance and community project manager at Genervision House. "Many people in Macao are unfamiliar with the term 'sustainable development' or perceive it as solely environmental protection. We want to start by changing people's minds through education and media exposure."

While the SDGs have been translated and circulated in Chinese, many misconceptions remain. "When they're just starting to learn about the term, people might associate it at first with environmental protection," says Ng.

"If people have more opportunities and channels to learn about sustainability, it is only a matter of time before they understand the importance of the SDGs," adds Ng positively.

First proposed in July 2014, the 17 Sustainable Development Goals build on the original eight Millennium Development Goals

(Below) Gladys Ng is the community project manager at Genervision House





Genervision House hosted a beach potluck event with the Language Exchange & Culture Promotion Association in March 2021 to discuss gender equality

Un agrees, adding that the group plans to raise awareness through offline activities, such as workshops, and online content, for example monthly newsletters and videos. “We’ve also held experiential activities, like our Gutenberg Soap Series Workshop,” says Ng.

In collaboration with local artist Oriana Cheong, participants gathered at the Centro de Cultura e Artes Performativas Cardeal Newman in May to discuss sustainable consumption, while carving beautiful patterns on recycled soap collected from staycations and quarantine stays. They then used the patterned soap to stamp greeting cards made out of recycled paper.

For International Women’s Day in March, Genervision House organised a potluck event at Hac Sa Beach in Coloane with the Language Exchange & Culture Promotion Association to discuss gender equality – another SDG – over board games. Ng says they strive to host more

events in the future and are currently planning another farming event.

In addition to community events, the association seeks to collaborate with policymakers and present solutions to bring the SDGs to the fore. While sustainable development has played a more central role in recent policy plans, the city has yet to integrate the SDGs into official strategies.

“Our vision is big, and it definitely will take time, but we are hopeful,” Un says. “We’re just beginning, but we’ve seen many more new faces and heard many more new voices who care about this topic... We can all adopt [the 17 SDGs] in our daily lives. It’s never too late to care about sustainable development.” ●

Interested in learning more about Genervision House’s activities and events? Scan the QR code to visit their website.



ARTS AND CULTURE

Pulling new *strings*

We talk to Teresa Lam Teng Teng and Kevin Chio, who opened the first professional Chinese puppetry theatre group in Macao, about sharing local stories through puppetry.

Text **Rafelle Allego**
Photos **Denzel Calangi**

A tabletop puppet that Teresa Lam Teng Teng and Kevin Chio made while they completed their studies in the Czech Republic

Nestled between quaint townhomes and produce stalls in Coloane Village sits an unassuming, three-storey house. But looks can be deceiving: inside the quiet abode awaits a riot of creativity and artistry, music and performances.

This is the House of Puppets Macau, a performance venue established in 2021 by Teresa Lam Teng Teng and Kevin Chio. The venue is home to the Rolling Puppet Alternative Theatre (滾動傀儡另類劇場), the first professional Chinese puppetry theatre group in Macao, and also serves as a creative hub for all kinds of other artists.

The couple is on a mission to elevate Macao's local arts scene, build a community across greater China and encourage critical thinking through their socially driven productions. "Art is about experiences, feelings and exchange of thoughts to encourage everyone to think on their own," says Lam. "It is not only about inspiring but also educating in a place with space for everyone, like the House of Puppets."





Sharing their love of puppetry and all that the art form stands for, the couple began the Rolling Puppet Alternative Theatre in 2014

(Opposite page) Props that current artist-in-residence Jason Fong used in his performance about Coloane's tales

SETTING THE STAGE

Both born in the 1980s, Lam and Chio found their way to puppetry in different ways. Lam, the House of Puppets' artistic director, worked as a graphic and web designer in Macao for nine years before switching careers. Having been passionate about the arts since secondary school at Sacred Heart Canossian College, Lam joined an amateur theatre group and performed around the region as a hobby.

In 2003, Lam met Kok Heng Leun, a high-profile member of the Singapore arts scene, during a theatre directing and performance workshop ahead of the Macao Arts Festival. After the workshop, Kok invited Lam and another participant to Singapore

where they helped him prepare his performance for the festival.

While in Singapore, Lam trained with Kok at acclaimed theatre company, Drama Box, where Kok is the artistic director, for six months. Through this experience, she learned how theatre can be a powerful voice for the oppressed and felt inspired. "Suddenly, my mind widened a lot," says Lam. "Drama Box showed me how meaningful high-quality theatre can be in providing social functions and inspiring dialogue for reflection."

More than five years later, in 2011, Lam and Chio, who have known each other since their mid-20s, started dating. Early in their relationship, Chio helped make props and paint backdrops for Lam's theatre group

rehearsals. "He'd come to shows by himself, and actually, there's not a lot of guys like that in the city," says Lam.

Chio, who holds a bachelor's in computer science and a master's in engineering management from the University of Technology Sydney, had been working as a company service manager when they started dating but started wondering what his life would amount to.

"I didn't want to remain [in that job] forever and I felt it was time, so I quit," Chio says. "It wasn't about feeling stuck but about choice." For Chio, staying might have meant a higher income, stability and some sense of accomplishment. But he believed theatre art could teach him deeper, more rewarding values such as "critical thinking, aesthetic judgement and justice".

Sharing a mutual desire to pursue theatre, both Lam and Chio applied for master's programmes in the Department of Alternative and Puppet Theatre (DAMU) at the Academy of Performing Arts in Prague, Czech Republic. Lam studied puppet theatre acting, while Chio focused on arts management. This marked the beginning of their "second life", says Lam. "[We are] really lucky the university accepted both of us."

Arts management felt like a natural progression for Chio, who is now the executive director of the House of Puppets, handling operations and administration. Meanwhile, Lam gravitated to puppetry, because it connected her interests in theatre, design and out-of-the-box concepts.

"Just as Aristotle said, metaphorical thinking is the highest form of thinking," says Lam, adding that puppet maker Bernd Ogrodnik once equated puppetry with poetry. "Puppetry can be poetic, not only with drama and all the talking, but showing hidden meaning visually through puppets and even objects that can open up experiences and stir critical thinking," she says.

“

Puppetry can be poetic, not only with drama and all the talking, but showing hidden meaning visually.

– Teresa Lam Teng Teng



CURTAIN CALL

While living and studying in the Czech Republic, Lam and Chio learned all about alternative, contemporary theatre and debunked some of their own misconceptions about puppetry. Before studying the art form, neither realised just how complex and sophisticated the art form can be.

“Not only were we able to learn performance arts at a higher level [while studying], but going there also helped us synchronise our understanding of puppetry and theatre along the way, while experiencing it together,” says Chio.

The theatre style requires performers to act and animate puppets at the same time, while often creating stories from scratch and adapting literature into performances. It’s about the artist’s mind and how they channel their message to the world, says Lam.

When compared with traditional puppetry theatre, where there’s often a clear takeaway message, contemporary puppetry is more ambiguous and open-ended. It’s not about telling audiences what to think but inviting them to think past the obvious, says Lam. “Puppet and object theatre is definitely a very powerful tool [that can] open up the imagination,” says Lam.

In addition, traditional puppet theatre can be limited to regional styles of storytelling. For example, in China, traditional puppetry often communicates values, philosophy and religious views through puppetry, alongside music and choreography that incorporates martial arts.

Traditionally, artisans handcraft each puppet (usually shadow, rod, string or glove puppets) from wood, leather or cloth as literal representations of each character. Whereas, contemporary puppet theatre knows no bounds when it comes to storytelling and puppet style.

For example, Lam says in contemporary puppetry, artists can use unconventional items – like a can opener – as a metaphor for someone’s mind. “Sometimes it’s not about making a puppet from scratch but picking an object which we can alter its appearance,” explains Lam, pointing out that any everyday object can be transformed into characters and symbols.

While studying in Prague, Lam and Chio launched their own theatre group, Rolling Puppet Alternative Theatre, in 2014. They performed shows when they returned to Macao each summer to share contemporary puppetry with local residents and develop the group’s unique artistic style.

Rolling Puppet’s contemplative shows typically explore a local social issue – the environment, history, politics, media, literature – through symbolism and bittersweet scenes, which often contrast sad and bright moments. “It’s really meaningful for us to [perform stories] about Macao,” says Lam. “It’s like a mission for us.”

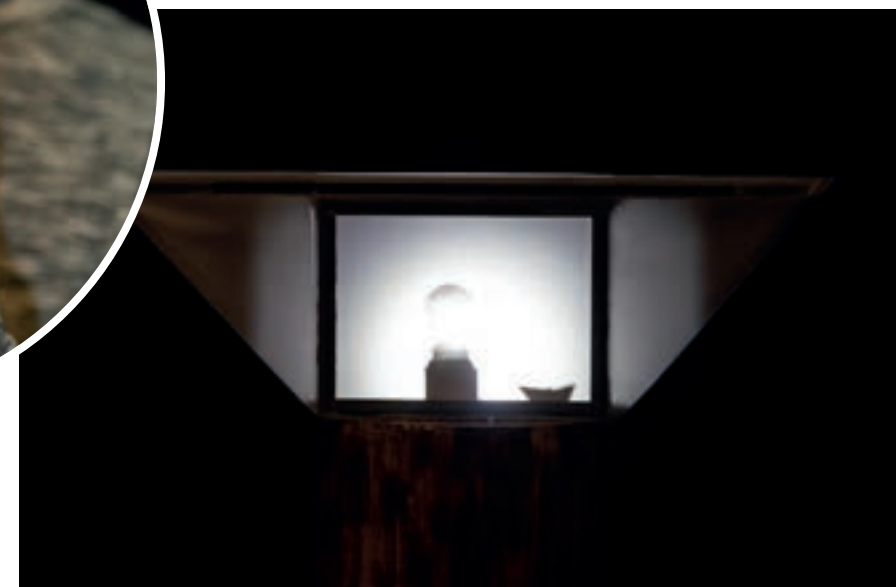
For Lam’s final project at DAMU, she directed and performed a puppet show called “Made in Macao”, which went on tour in Norway, Japan, Singapore, Taiwan, Hong Kong and then Macao. Using a mix of chopsticks, Chinese hand puppets, Czech marionettes, origami, small toys and even Chinese paint brushes, the story followed Lam’s life in Macao and traced the city’s transition from Portuguese to Chinese administration.

The pair graduated in 2016 and returned to the city to focus on their shows full-time. At first, they worked in a windowless, 18.6-square-metre room in an industrial building in northern Macao.



Fong merged storytelling and magic in his Macao City Fringe Festival performance this year

(Opposite page) Contemporary puppetry uses all manner of puppets, from marionettes to hand puppets



Ahead of each show, Chio and Lam made their own puppets – anything from hand and tabletop puppets to marionettes and ventriloquist puppets – with whatever material was available. Sometimes, they used wood and clay, other times paper mâché, cloth, cardboard, pens or plastic bottles.

But the space was too cramped for rehearsals, so they had to rent out a studio before major performances. When a realtor friend told them about a house in Coloane Village, they moved as soon as possible and eventually found their current three-storey space, which opened in 2021.

Over the years, they have documented many uniquely Macao experiences through their puppetry performances, as well as modern adaptations of Chinese literature. For example, in 2021, they performed a modern adaptation of Chinese writer Li Shangyin's *Seven Doors* (七道門) book of poetry, which chronicles a young couple's turbulence after moving into a tiny apartment together.

They also take inspiration from everyday encounters in Macao. After coming across a dead dolphin on Hac Sa Beach in June 2021, they created a dolphin marionette from plastic bottles and bags. "Plastic kills dolphins so we made the dolphin with plastic," says Chio, who hopes to raise awareness about environmental protection through the creative process.

The group created two white dolphin puppets from plastic – a calf and its mother – for the performance. In a key scene, the two dolphins rescue the play's main character, Mushroom, from drowning. However, the calf gets trapped in rubbish on the way back to the sea, so Mushroom asks the audience to figuratively save the dolphin by removing the trash. "It's a simple scene," says Lam, "but it's a message to humanity that we have a choice to do something."



The Black Box

The House of Puppets Macau's basement has been converted into a Black Box – a theatre venue you can rent for performances. Thanks to its simple black walls, the space is a blank canvas for performances, art exhibitions and installations.



As puppeteers, the duo not only animate but also create their own puppets

BUILDING A COMMUNITY

Since moving the House of Puppets to Coloane, Lam and Chio have befriended many neighbours, most of whom are older residents who enjoy having long, leisurely chats with the artists. Through these casual conversations, the couple started learning and compiling an oral history of Coloane, including stories about the pirates that once roamed the surrounding waters.

From the mid-19th to mid-20th century, piracy impacted Macao politically and economically.

While living in Coloane and other nearby islands, the pirates were surprisingly integrated into the Macao community and influenced the city's social fabric.

"We collected and connected the stories, then made a show about the pirates in the area," says Lam. "The locals have their own version of events, considering themselves simply residents and not pirates."

The oral histories came to life in a recent Rolling Puppet Alternative Theatre production, "A Space of New and Old," at the 21st Macao City Fringe Festival in January 2022.

The group's current artist-in-residence, magician Jason Fong, performed an 85-minute show based on two month's worth of stories from retired Coloane residents.

As Lam explains, Fong's show feels like a cross between documentary theatre and a magic show, with many special lighting effects. For example, to show the passage of time, Fong transformed historic currency into modern patacas. In another scene, he performed a magic trick inside a water tank to tell the story of people swimming from mainland China to Macao. "His performance is very visual, with magic merging with storytelling," says Lam. "It's definitely a unique approach as most magic shows are about entertaining or making people laugh."

Through their productions and performances, Lam and Chio have built a following locally in Macao and built a bridge with the theatre scene in mainland China. Last year, Lam taught a master's class on puppet and object theatre for a semester at Shanghai Theatre Academy. "It's a huge thing for a Macao artist to teach at the Shanghai Theatre Academy," she says. "For a young Macao theatre group, I am really amazed by all these opportunities."

They invested further in artistic exchanges between Macao and mainland China when organising OUT! Coloane Art Festival – a local celebration of theatre, storytelling, illustration, puppetry and other creative events – in 2021. They invited Lu Ang (盧昂), the director of Shanghai Theatre Academy's

International Directing Master Class, to join the festival in an effort to raise more awareness about the city's arts and cultivate a regional community.

Looking ahead, Chio also hopes to teach art management at the Shanghai Theatre Academy in the coming spring semester. "For example, we could curate some Shanghai-Macao performances to join our [OUT!] festival [next year]," he says, hoping to establish more connections and share local stories.

At the end of the day, the couple says that the most important thing is not wealth or attention, but delivering meaningful messages to their audiences with every performance. "It's not just coming to the theatre and being entertained, then going out and returning to work as normal," Chio says. "We hope our audience recognises the questions we raise and, in the end, that we encourage critical thinking." ●



ARTS AND CULTURE

Delicate art, unbreakable *legacy*

The Macao Museum of Art is showcasing 120 pieces of fine Chinese porcelain produced from the imperial kilns of the Ming dynasty to celebrate the art's rich history.

The Macao Museum of
Art exhibition coordinator
Irene Hoi Ian Chio

Text **Vivianna Cheong**
Photos courtesy of
Macao Museum of Art

For centuries, porcelain has embodied the definition of beauty, meeting with universal adoration across Asia, Europe, the Americas and Africa thanks to its delicate material, intricate patterns and classic white-and-blue colour palette. Believed to have originated during China's Eastern Han dynasty (25-220 AD), the art flourished under the Ming dynasty because the imperial court took control of industry, elevated production techniques and exported wares around the world.

Celebrating the rich legacy of Chinese porcelain and the contributions of Ming dynasty leaders, the Macao Museum of Art (MAM), is hosting the "Quintessence of Imperial Kiln Porcelain" exhibition through 6 March 2022. Co-organised with Beijing's Palace Museum, located within the Forbidden City, the exhibition features 120 pieces of imperial kiln porcelain.

"The Forbidden Palace was the imperial residence of the

Ming and Qing dynasties, and the Palace Museum [in Beijing] is the national museum that owns the largest collection of Ming porcelain," says MAM exhibition coordinator Irene Hoi Ian Chio.

Over the course of a year, curators carefully selected each exhibit from the Palace Museum's vast collection of over 3.6 million pieces. They have chosen to display them in chronological order to showcase how the artform evolved in terms of motifs, colouring, shapes and refinement.

This is not MAM's first exhibition dedicated to porcelain. In 2010, "Fire and Colour: Imperial Kiln Porcelain of the Qing Dynasty from the Palace Museum Collection" met such a warm reception in Macao that MAM felt compelled to revisit the topic through another lens.

"In Macao, quite a few people love porcelain, not to mention professionals who love to collect porcelain pieces," Chio continues. "We hope to show these delicate works to Macao people."

Denzel Calangji

This Ming dynasty yuhuchun vase showcases underglaze red porcelain, a challenging style to master due to the high firing temperatures required



THE RISE OF 'CHINA'

Porcelain was already a well-established craft by the time the Ming dynasty came into power, but it found new momentum during their rule from 1368-1644. It all started when Emperor Hongwu set up an imperial kiln in Jingdezhen, a town in Jiangxi province, in 1369. Why Jingdezhen? The area is home to *kaolin* – a soft, special clay used to make the gleaming white porcelain that we know today.

Taking control over the entire porcelain industry – from production to design, distribution and usage – Ming royals began using the beautiful material for everything from decorative wall and roof details in palaces to vessels for religious sacrifices, tributes to officials, and diplomatic gifts.

With the artform under the royal purview, Ming rulers not only consolidated their royal power but also took it to new heights. As a result, many beautiful porcelain motifs, colours and shapes emerged and became even more refined in the Ming dynasty. “Imperial kiln porcelain was produced at the highest standard in terms of skills, colours and shapes because the pieces were for royal use,” says Chio.

Between 1405 and 1433, Ming Admiral Zheng He undertook seven maritime voyages across the South China Sea, the Indian Ocean and beyond. Along the way, he exported a considerable volume of Chinese goods, including porcelain, to the West. Trade proliferated in the early 16th century, when Portugal developed more routes in Asia. Westerners fell in love with Chinese porcelain, or “China” as they called it, and the exported vases, bowls and plates quickly became a sought-after commodity among art lovers and collectors alike.

Since the Ming dynasty controlled Chinese porcelain production, these exports gave the empire a chance to showcase the country’s manufacturing capabilities while enhancing China’s international political and economic relationships.

MASTERING UNDERGLAZE TECHNIQUES

The ongoing MAM exhibition focuses on the Ming dynasty’s contribution to porcelain, offering rare examples of imperial kiln porcelain work made in Jingdezhen across the reigns of 13 emperors. What is it about porcelain that makes it so beautiful? One key element is the colour, says Chio.

She points to an underglaze red porcelain yuhuchun vase from the Hongwu period (1368–1398) with a pine tree, bamboo and plum design. Producing underglaze red porcelain wares requires care and technique, says Chio.

To create this style of porcelain, the artist must first paint their decorations on the clay, then add a clear glaze before firing the piece in a high temperature. Due to copper oxide, which was used as a colouring agent, some colours turned dark red in an ultra-hot kiln. Artists could only use a select few shades – including red, brown and blue – and had to be very skilled in firing to achieve clear, crisp colours. Red, in particular, was one of the hardest colours to control.

“In the Ming dynasty, such colour was produced at its best but you can’t find underglaze red porcelain [across] the entire dynasty, because it requires high skills and attention to the temperature,” says Chio. “The composition of the humanistic motifs [pine trees, bamboo and plums] combined with the shape makes this vase extremely elegant. It really represents excellent imperial kiln porcelain production.”



Macao artist, collector and conservator Chao Chi Chun says talented painters drew the patterns on Ming dynasty porcelain wares, which elevated their value

During the reigns of the third and fifth Ming emperors – Yongle (1403–1424) and Xuande (1426–1435), respectively – imperial kiln production peaked in technique and sophistication.

It was during this time that blue-and-white porcelain became the prominent and revered style. “There was a boom of artists and painters during the Ming dynasty. The motifs and patterns on porcelain were usually drawn by painters, rather than technicians, so they have great artistic value,” says local painter, art collector and conservator Chao Chi Chun.

The porcelain’s brilliant blue colour also saw an upgrade around this time, thanks to a new material – cobalt – imported from abroad. “When [Ming Admiral] Zheng He took his voyages, he brought [back] cobalt and the material was heavily used during the Yongle and Xuande periods,” says Chao.

At the exhibition, a blue-and-white press-hand cup adorned with lotus scrolls exemplifies the elegance of porcelain from the Yongle period. A must-see for many art collectors and lovers, the piece is one of just three that remain at the Palace Museum.

Designed to be held comfortably in the palm of your hand, the cup showcases incredible details, such as an intertwined lotus scroll that symbolises luck and growth. The motif has appeared on porcelain for many centuries, seeing notable popularity during the Yuan, Ming and Qing dynasties.

The cup also represents a turning point in porcelain production. At this time, Emperor Yongle began adding his reign mark and an inscription – “Yong Le Nian Zhi” (meaning, “Made in the year of Yongle”) – in archaic seal script inside the cup. This precious piece is one of the first to feature a reign mark, and the trend continued well into the Ming and Qing dynasties as emperors wanted to mark their precious porcelain.

During the Yongle period, however, only a handful of porcelain wares featured the emperor’s reign mark. “In Chinese culture, there is a superstition that it brings bad luck to have something [plates, bowls, glass, vase, etc] broken,” explains Chao. “The emperor was superstitious, so he didn’t want to take any chances in case something with his reign mark would be broken.”

COLOURS IN CONCERT

Multi-coloured glazed porcelain – especially bright red, dark blue and white – emerged in the middle of the Ming dynasty. Despite a fitful reign, culture flourished under Emperor Chenghua (1465–1487) whose passion for the arts paved the way to great accomplishments.

Among the most impressive pieces to emerge from this era are the internationally chicken cups – tiny cups with metaphorical illustrations of chicken, roosters and hens that depict Chinese values, such as continuing the family line. This time period also gave us a porcelain painting polychrome technique called *doucai*, which means “contrasting colours”.

“*Doucai* combines two different

techniques: underglaze blue and white with overglaze colour. Such a technique is complicated, because once a porcelain vessel is shaped, the design is outlined in blue on the vessel, which is then painted another layer of transparent glaze,” says Chio. “It then requires another firing in high temperature. After the firing, various colours – red, yellow, green and purple – are painted on the vessel, which requires techniques, such as stippling, overlaying and filling.”

She points to a *doucai* stem cup with lotus scrolls as another highlight of the exhibition. “The featured colours range from red to yellow to green, and they are at their most splendid. The lotus scroll is so delicately painted,” gushes Chio. “It’s an example of elegance.”

The blue-and-white press-hand cup from the Yongle period (1403–1424) is one of the first pieces of porcelain to feature an imperial reign mark



This stem cup with lotus scrolls from the Chenghua period (1465–1487) uses the *doucai* technique, which combines contrasting colours using both underglazing and overglazing

(Opposite page) Shaped like a garlic bulb, this vase was produced in the Wanli period (1573–1620) and displays the era's signature multi-colour style



In the late Ming dynasty, between the periods of emperors Jiajing, Longqing and Wanli (1522–1620), the economy started to decline and imperial kiln porcelain followed suit. Designs and quality started to slip as producers looked for more economical methods. This gave way to larger, heftier pieces, which required less effort and attention to produce than small, delicate ones, says Chio.

However, producers also expanded the artform's use of colour, she adds. "In the late Ming dynasty, [merchants sold] a lot of Chinese porcelain to Europe, and also brought popular [Western] styles and motifs [back to China]," she explains. "This triggered colour exploration and innovation in Jingdezhen – and radiant colours also reflected the emperors' tastes."

The East-West cultural exchange gave way to the emergence of *wucai*, a painting technique that combines many vibrant hues. Wucai is similar to its predecessor, *doucai*; but the two techniques use the colour blue differently. Doucai uses blue for the whole design, while wucai applies blue as part of a design where colour is used widely and freely.

Chio references an unforgettable wucai example from the Wangli period (1573–1620): a polychrome vase shaped like a garlic bulb that's covered in radiant flowers, willow trees and birds.

"The whole vase is packed with beautiful details, and the colours

are brilliant," says Chio, adding that this vase reflects the aesthetic principles and radiant colours beloved in the late Ming dynasty.

A LASTING LEGACY

From the early red underglaze techniques in the Hongwu period to the joyful kaleidoscopic designs during Emperor Wanli's reign, the MAM exhibition tells a captivating story of how porcelain came to be a quintessential Chinese artform under the leadership of the Ming dynasty.

As a complement to the vast exhibition, MAM will be hosting a talk with Wang Wei Weng, a researcher from the Palace Museum, to provide more insights about the colouring and techniques seen during the different eras of the Ming dynasty.

Whether enjoying the wares at the exhibition or attending this special discussion, the programme will undoubtedly cultivate a deep appreciation for the beauty, technique and history behind Ming dynasty kiln porcelain wares.

The artform's exceptional production methods and aesthetic principles not only consolidated the dynasty's power, but also greatly influenced porcelain production and artistry for centuries.

"When Emperor Hongwu started the imperial kiln in the second year of his reign, it officially established the imperial kiln standard, and created porcelain exclusively for the emperors. During porcelain production history in China, the Ming dynasty is the third important period, especially in Yongle and Xuande periods when blue-and-white porcelain was at its best in the Mins dynasty. From art collectors, historians, to even ordinary people, the Ming imperial kiln porcelain has greatly influenced its research values and cultural significance." ●



K-9: New breed of hero

Take a walk inside the police department’s Police Dog Group, which trains man’s best friends to fight crime and keep Macao safe.

Text **Rafelle Allego**
Photos **Denzel Calangi**

The intelligence and agility of Labrador retrievers make them ideal for drug detection and security work

Dogs are often described as man’s best friend. But well before dogs became our loving companions for walks and lunch dates, humans trained them to hunt, guard farm animals and protect homes. As far back as ancient Greece and Rome, dogs have been synonymous with security and, still today, many work to keep our community safe.

In Macao, the Public Security Police Force (PSP) Police Dog Group, or K-9 unit, has been building a team of crime-fighting dogs since 1995. The PSP founded the unit with 30 dogs, which they trained to detect drugs at the Macao airport and land border crossings, deter street crime, and protect visiting officials and other VIPs.

“Since we have an international airport, it’s very important to have drug detection dogs at the airport so there’s a deterrent and preventive effect,” says Senior Inspector Chan Wai In, who oversees operations at the unit.

Now with 108 dogs in its employ, the K-9 unit is an integral part

of Macao’s safety and security strategy. Between 2010 and 2021, the animals helped the police solve 106 drug cases and three tracking cases by identifying illegal substances and searching for clues.

On occasion, the Police Dog Group has also supported the Judiciary Police Bureau, which usually tackles criminal investigations and helps prosecutors catch violent criminals. Most recently, in June 2021, the canine unit helped solve a murder case. In this tragic and gruesome incident, the dogs discovered a suitcase at Taipa Grande Hill that contained dismembered body parts of a murdered woman. Police already had the suspect in custody, but needed the suitcase to prove their case.

“It was quite difficult because it is on a hill and it’s a large area – we had no direction and no clues at first,” says Chan. “So it might have been a mixture of skills, coincidence and luck for the dogs to have found the body parts in three to four hours.”



BUILDING A K9 TEAM

Located at the intersection between Estrada de Hac Sa and Avenida de Luís de Camões, the K-9 division is part of the Special Police Unit, which stretches across a four-storey administrative building and a 3-storey kennel building next door.

To build up the unit, the police purchases dogs from reputable breeders in countries such as the UK or the Netherlands, as well as mainland cities like Nanjing and Kunming. These dogs are also internationally recognised working dog breeds and all must undergo professional assessments before being assigned to a department.

According to Chan, the unit does not accept adopted dogs because they encountered behavioural problems in the past. “We tried to accept other dogs but they have some bad habits and it’s very hard to change their bad habits once they’re already older,” he says, adding that it’s much easier to train puppies.

When they are roughly 10 months old, the Special Police Unit divides the dogs between its three divisions – Patrol, Drug Enforcement and Security Inspection – since each department requires a different type of dog and skill set. This leads the dogs to develop specialised roles in areas such as drug detection, patrolling, tracking, or search and rescue.



Senior Inspector Chan Wai In joined the Police Dog Group in 1999 and has been working with the unit's dogs ever since



For instance, patrol dogs are assessed for their obedience and attack abilities, while drug detection dogs and security dogs are tested for their ability to track and search.

When it comes to matching breeds with the most appropriate job, German shepherds and Belgian malinois typically help with patrolling, crime prevention and crowd control, thanks to their intimidating size, strong physique, obedience and ability to deter criminals.

Labrador retrievers, springer spaniels and Kunming wolfdogs often join drug detection and security details – which also involves screening and tracking – because these breeds are very intelligent with a keen sense of smell and flexible personalities. You’ve likely

seen drug detection dogs deployed at the airport and other border checkpoints. They typically patrol the area, sniffing passengers, luggage and cargo in an effort to identify drug-related crimes.

Meanwhile, screening dogs – usually a German shepherd or a Belgian malinois – often check event venues for anything suspicious, from contraband to explosive devices, ahead of a VIP visit, while tracker dogs go into action when investigators need help hunting down clues and searching for suspects. In October 2016, for example, a tracker dog helped the police thwart an attempted murder by leading them to the crime scene before the perpetrator could use deadly force.

Jerry, the 5-year-old Belgian malinois, is docile and high in obedience, the perfect companion for patrol work



Lucy, an eight-year-old Labrador retriever, leads a drug detection demonstration at the unit's Coloane base

Lastly, search and rescue dogs help officers during and after large-scale disasters. For example, after a landslide or building collapse, these heroic dogs may be able to help locate a missing person.

The police use a mix of playful games and goal-oriented drills to train the dogs and keep them engaged. To teach a dog to track down drugs, for instance, the police use a 'find it' game featuring the animal's favourite toy. After placing a drug-scented item in the toy, the police then hide the toy and have the dog track it down using their strong

sense of smell. Soon, the dog will associate the scent of the drug with their toy and easily identify it at airports and other border crossings. In the same way, if a dog is looking for a missing person, they can use an item of the individual's clothing to follow the scent.

Lucy, an eight-year-old Labrador retriever, is one of the department's drug detection dogs. In a demonstration at the unit's Coloane base, her trainers place a row of luggage bags in a room with a tennis ball hidden inside one of them. In walks Lucy, who

eagerly searches for her favourite toy, sniffing each suitcase until she excitedly finds the right one in a matter of seconds.

SPRING TRAINING

In May 2021, the unit welcomed a new cohort of nine Belgian malinois puppies. Known for their distinct black faces and ear markings, these golden-brown dogs have long been a favoured breed for police and military service.

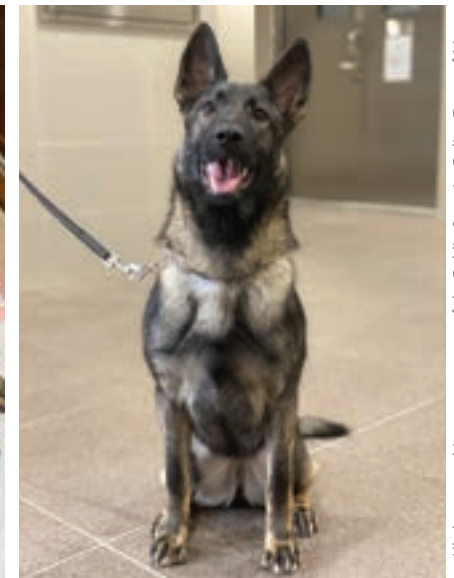
Currently eight months old, the dogs will undergo a series of health checks and tests, then begin training for a specialty department in March. It's best to train dogs when they are still puppies, says Chan, since they are still young enough to learn new habits while treating it as play. "If they are older than one year, their character is fixed already and habits are hard to change," he says. "This is why early training is important."

Among the nine dogs, the youngest, Mandy, will become a patrol dog. Characterised by her strong physique, obedient nature and lively personality, Mandy is an ideal candidate for patrol work.

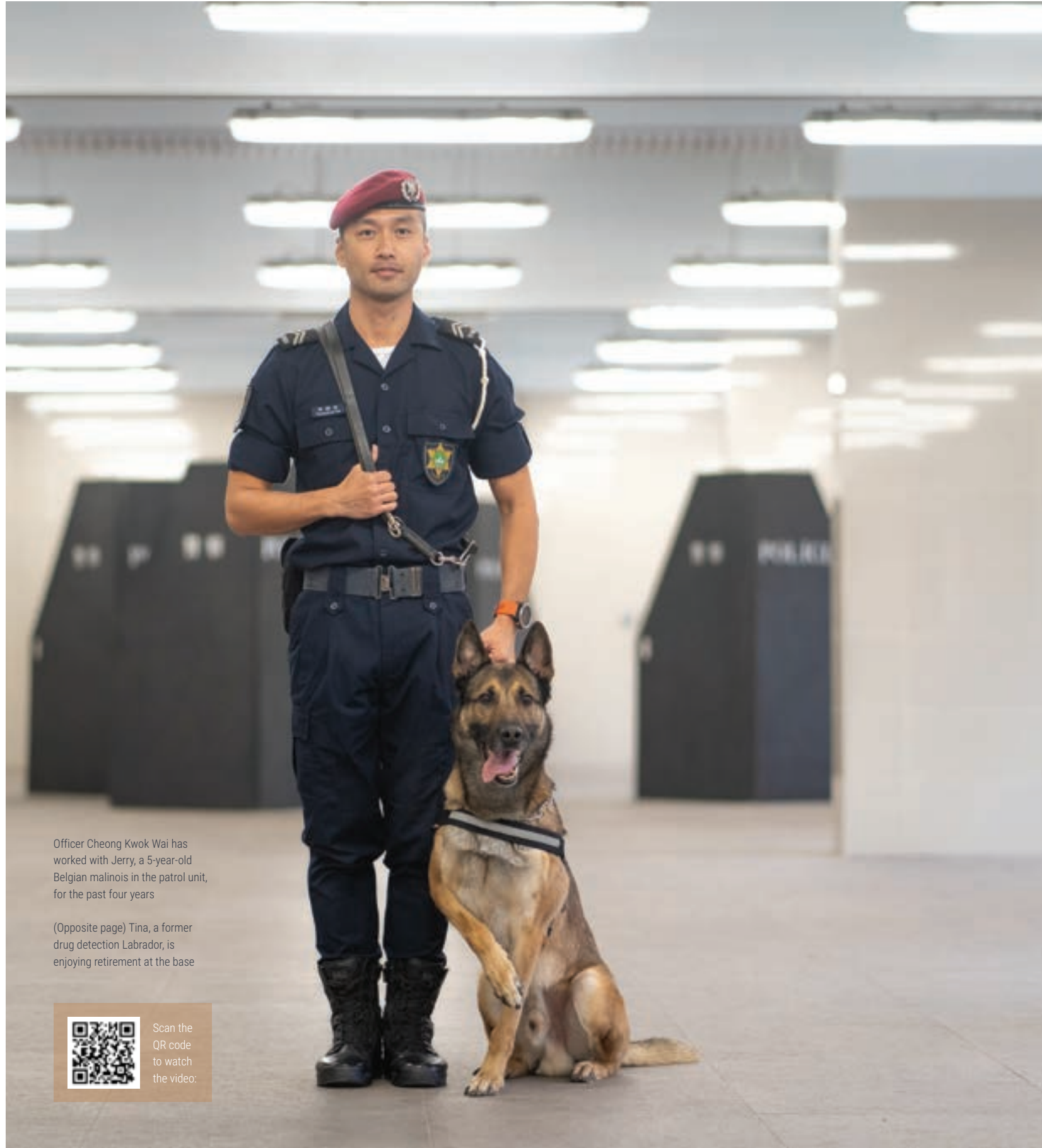
From beginning to end, each dog will undergo 12-15 weeks of training to learn the essential skills in their unit. Security dogs, trained in a similar manner as drug detection dogs, will learn how to identify explosives, while patrol dogs learn how to listen to commands, jump and attack. When they begin their service in the unit, they continue receiving regular training to stay sharp.

Next comes the matching process. The department typically looks for a complementary pairing when it comes to assigning dogs to officers. "For example, if the handler is very active, he will need a dog that is less active," says Chan, because they need to balance each other's strengths and weaknesses.

(Right) Mandy, the youngest of the nine Belgian malinois puppies, will become a patrol dog because she is very strong and agile



All photos on this page courtesy of the Public Security Police Force of Macao



Officer Cheong Kwok Wai has worked with Jerry, a 5-year-old Belgian malinois in the patrol unit, for the past four years

(Opposite page) Tina, a former drug detection Labrador, is enjoying retirement at the base



Scan the QR code to watch the video:

The officer is not only the dog's work partner but also its handler, taking care of the dogs day to day. Since working with police dogs is a popular and vital role, the recruitment process is very competitive. Handlers undergo intense training and only the top performers will be assigned to the K-9 unit.

Good dog handlers must be lively and love working with dogs through both training and play.

"I once handled two dogs but they have both passed away," says Chan, who has two pet dogs at home. "I was very fortunate to be selected for this unit, where I am now the senior inspector managing the base and its operations."

Once a dog is assigned to a handler, they typically work together for many years and develop a strong relationship. For instance, Jerry, a 5-year-old Belgian malinois, has been working with Officer Cheong Kwok Wai for the past four years, becoming close partners.

Most of the dogs in service will be part of the police family for the rest of their lives, while working and in retirement. The police unit usually retires dogs when they reach eight years, on average. Handlers will have an opportunity to take the dog home as a pet, or if that is not possible, the animal will remain at the base for the rest of its life.



As of January, the oldest dog at the department is a former drug detection Labrador named Tina who is almost 14 years old. She's still active and able, but has not worked for a few years. Instead she is enjoying retirement at the base, living out the rest of her life as a beloved pet.

After the nine young Belgian malinois dogs have been trained, Chan says the police will have enough dogs and officers in the K-9 unit. "We will keep on studying if there's a need to expand the unit according to social changes," he says. "In the process of training, we bring in fun but even so, as members of the police force, the dog unit serves as a bridge between officers and the public, performing the same work as police do in upholding general safety." ●



GREATER BAY AREA

Tracking the growth of the Greater Bay Area

Economic transformation in the Greater Bay Area is based in large part on the ambitious development of railway infrastructure and Macao stands to reap multiple benefits.

Text **Louise do Rosário**

An aerial view of Hengqin and Macao

Macao is getting on board one of the world's most ambitious railway development programmes as part of the wider transformation of southern China's Greater Bay Area (GBA).

China's plan to turn the 11-city GBA along the Pearl River Delta into the world's most important economic hub depends to a large degree on integrating the cities and towns of the region through a dense network of criss-crossing rail routes, and which also connect to air and sea ports.

Home to 72 million people, the GBA consists of nine mainland cities

– Guangzhou, Foshan, Jiangmen, Zhongshan, Zhuhai, Shenzhen, Dongguan, Huizhou and Zhaoxing – and the special administrative regions (SARs) of Hong Kong and Macao. The extension of the rail network across this dynamic and populous region offers multiple potential benefits to Macao.

THE VISION

The plans are described in the recently published Outline Development Plan for An Integrated Multi-dimensional Transport System in Guangdong (2021-2035).

A CRH380D train at Beijing South railway station

(Opposite page)
Guangzhou-Zhuhai
Intercity High Speed
Railway map

The aim is to create a “one-hour transport circle” within the Pearl River Delta (PRD) by 2035, meaning that travel between the major cities of the PRD should take one hour or less. Travel from major cities to prefecture-level cities in Guangdong should be within a two-hour period and three hours should allow access to major cities in neighbouring provinces, such as Changsha (Hunan province), Fuzhou (Fujian), Nanchang (Jiangxi), Nanning (Guangxi) and Haikou (Hainan). This involves a total investment of over 470 billion yuan (US\$74 billion) and the construction of 13 intercity railways and five hubs.

The GBA network will have a total track length of 4,700 kilometres in operation by 2025. By 2035, the rail network will reach 5,700 kilometres in length, covering all cities above the county level in Guangdong province.

China’s central government wants to create a dense railway network similar to those in the greater metropolitan areas of Tokyo, New York, London and Paris, but with even greater speed and efficiency. It sees such a network as essential infrastructure to make the GBA one of the most economically developed areas in the world.

This programme has enormous potential for Macao’s residents, cross-border commuters and visitors.

For example, Macao residents and visitors to the city will soon be able to take two high-speed railway (HSR) routes to Guangzhou and Zhaoqing, in Guangdong, where they can join the national HSR network. In the longer term, they will be able to take a train to Shenzhen, with a travel time of just 30 minutes. HSR trains can travel at speeds of 200-350kmh, depending on the line.

One part of the plan is the construction of an urban rail line from Hengqin Island, which borders Macao, to Jinwan Airport which serves the city of Zhuhai. This is due to be completed in 2023 as part of a major airport expansion.

Macao’s Light Rail Transit (LRT) will be linked to Zhuhai’s airport rail system, making it easier for travellers to reach Jinwan from downtown Macao.

ZHUHAI LINKS

Currently, Zhuhai is linked to Guangzhou by a passenger railway and a freight line that runs from Zhuhai’s port at Gaolan. One of the two new HSR lines under construction will run from Guangzhou North Railway Station to the city’s Baiyun (White Cloud) International Airport, Yuzhu, Nansha and Zhongshan stations, reaching Hezhou station in Zhuhai and then its final destination at the Hengqin Checkpoint.

The second HSR will start at Hezhou station and run to Jiangmen via Lianzhou town in Doumen to Zhaoqing East Railway Station, where it will be linked to the Guangzhou-Guiyang HST. Located in the east Doumen district of Zhuhai, Hezhou station is planned as a hub for the west bank of the Pearl River Delta. Hezhou station will handle inter-regional and inter-city trains.

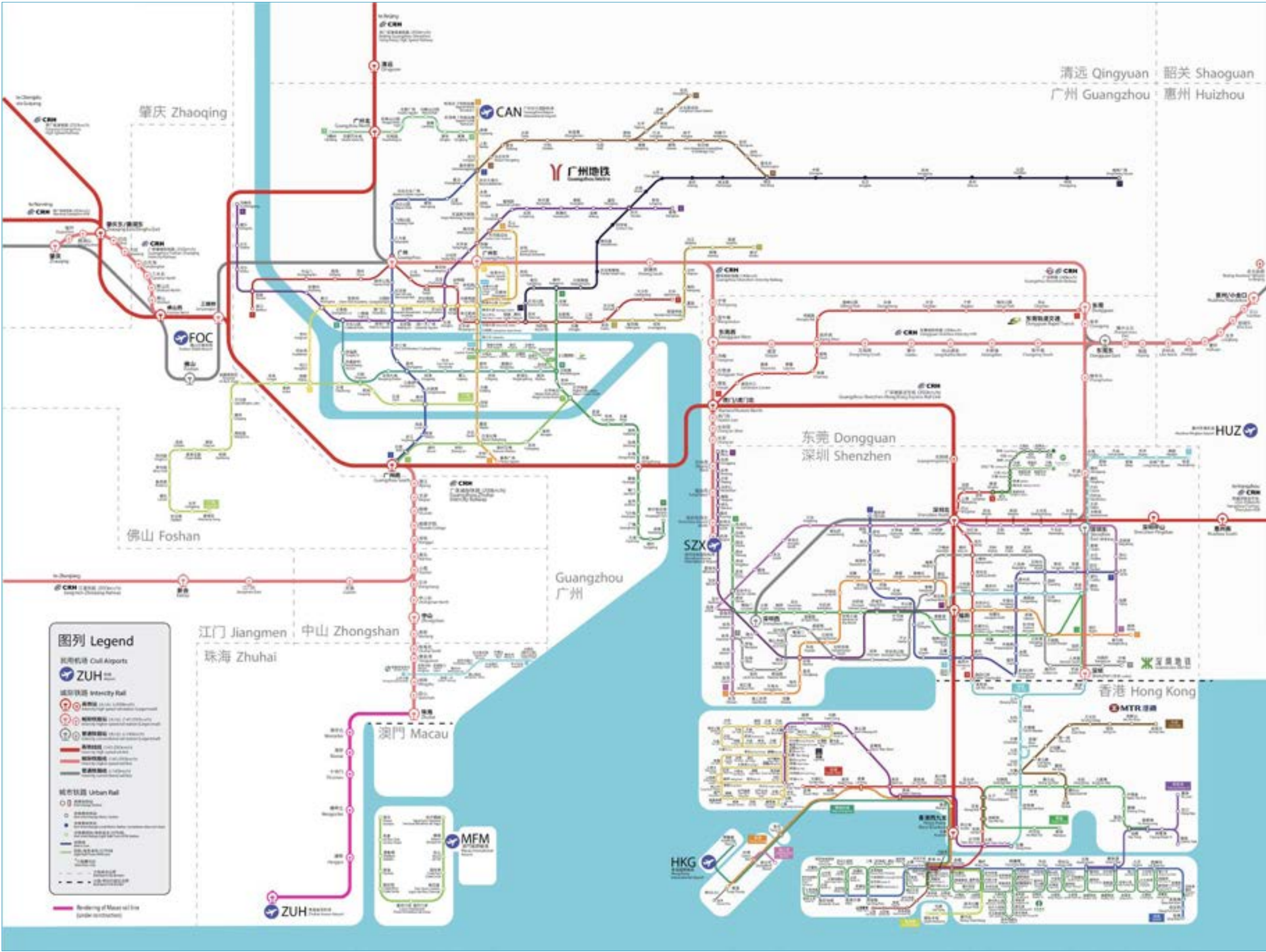
The most ambitious project is the rail link from Zhuhai to Shenzhen. Since this needs to cross the Pearl River, the engineering and economic challenges are enormous, and it will be difficult to complete within 10 years, analysts say.

When the project is completed travellers from Macao will be able to reach Shenzhen within 30 minutes.

Currently, passengers from 74 mainland cities can cross into Macao at Gongbei border point next to Zhuhai Station, via the passenger train service to Gongbei from Guangzhou South Station.

Guangzhou South Station





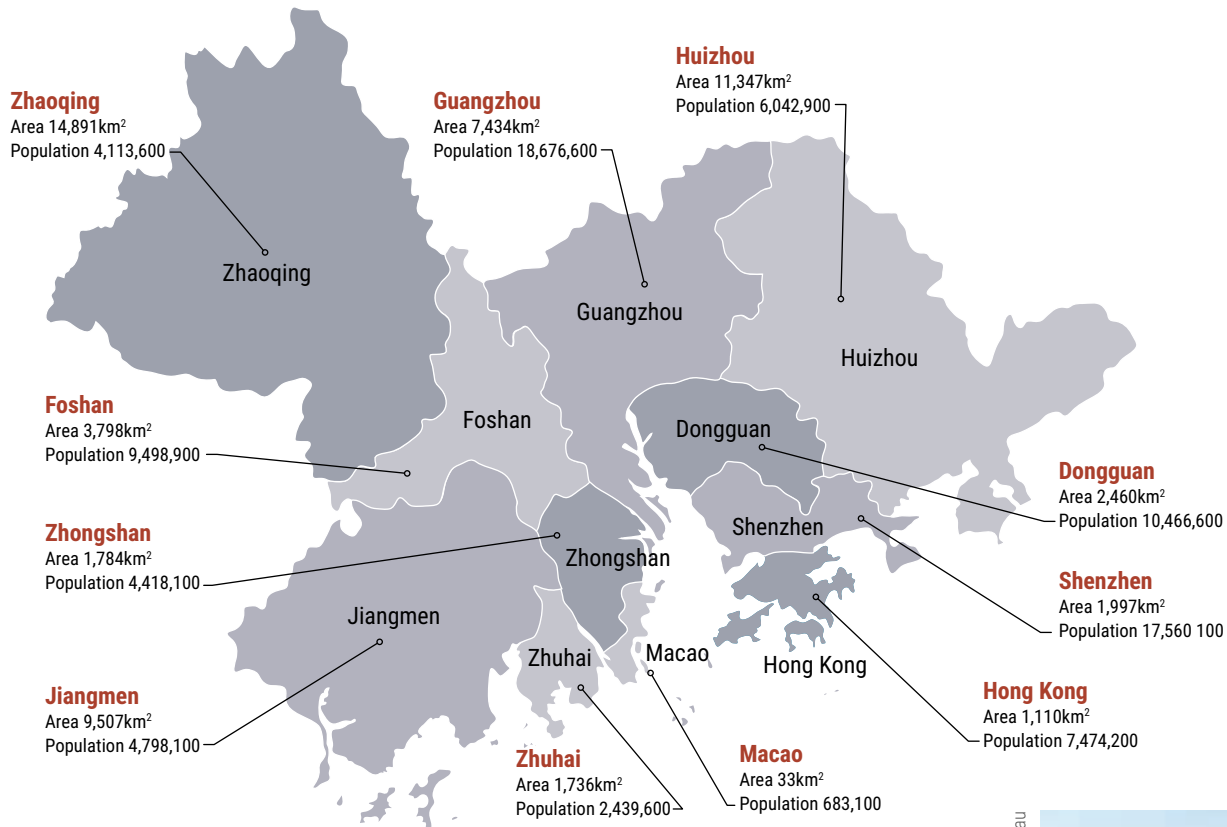
JINWAN AIRPORT

One part of this dense network of lines aims to improve access to Jinwan airport in Zhuhai, which is 50 kilometres from the city centre and 25 kilometres from Macao. It opened in 1995 and has struggled to compete with the other airports in the PRD because of poor land access and no international flights access. The government aims to correct both of these deficiencies.

In the first week of January 2022, the first 50 metres of track of the east line of Phase II of the Zhuhai Airport Urban Rail, in Hengqin Island, was completed. The line will link Hengqin to Zhuhai's Jinwan airport, with the entire length of 39.48 kilometres due to be ready by 2023.

Phase II begins at Chimelong station in Hengqin, which serves a major tourism district, and runs through Hengqin, Shangniujiao and Jingwan tunnels before emerging onto the Jinhai Avenue Bridge. It is one of the world's widest multi-tower cable-stayed bridges, with a highway and railway on the same platform. After reaching Jinwan's Sanzao town, the line will be connected to the planned Zhuhai Airport Comprehensive Transportation Hub.

With the train reaching speeds of up to 160 kilometres per hour, travel time between Gongbei, the border-crossing point with Macao, and Jinwan airport will be cut to half an hour from the current 80-minute trip.



The first phase of this airport link, completed in August 2020, is already up and running. The 16.86-kilometre line, with seven stops, takes only 20 minutes to run between Gongbei and Chimelong in Hengqin.

In 2019, Zhuhai airport handled 12.28 million passengers and 51,000 tons of cargo and mail with a total of 89,000 flights. It is home to more than 30 Chinese airlines, with China Southern as the main carrier as well as hosting the China International Aviation and Aerospace Exhibition, the country's most important aviation show, every other year.

Zhuhai wants to add international routes, to increase the appeal of the airport to residents of the GBA. Airport Authority Hong Kong currently holds a 55 per cent stake in Zhuhai airport and wants to increase it.

By comparison, last year Macau International Airport handled 1.147 million passengers, down from 1.173 million in 2020 but less than half the figure of 2018 (3.295 million).

Before the pandemic, 34 airlines operated at Macau airport connecting to some 59 destinations covering areas in mainland China and Taiwan, Southeast Asia and Northeast Asia. Due to Covid-19 restrictions, Macau airport currently only handles flights to and from mainland China.

With international flights and a rail link to Zhuhai, as well as to Guangzhou and the country's HSR network, Jinwan could become a more serious alternative to the Macao airport.

HENGQIN DEVELOPMENT

Hengqin Island is critical to Macao's future economic growth and diversification. The centrepiece is the Guangdong-Macao Intensive Cooperation Zone, which takes regional integration and the "One Country, Two Systems" to new levels.

Macao is building a 2.2-kilometre extension for its light rail system to link Cotai, home to several integrated resorts, to Hengqin Island, with a target completion date of 2023. There will be a viaduct, an underwater tunnel and two stations.

This Hengqin Line will run from HE1 Station near the Taipa Line's Lotus Bridge Station, along the Lotus Bridge via an

overpass and pass through the Shizimen Waterway in a 900-m immersed tunnel to HE2 Station beneath the Hengqin Checkpoint. Passengers can then transfer to other means of transport at a transit complex.

The Macao-based, state-run Nam Kwong Group is building the line at a cost of MOP 3.5 billion (US\$ 436 million). This new line will help integrate Macao into the one-hour living circle of the GBA.

Macao's LRT East Line will also connect the Gongbei Border checkpoint to the Taipa Ferry terminal via an underwater tunnel. This new 7.6-kilometre line will have six stations with a 15-minute ride from start and finish.

(Opposite page) Cities of the Greater Bay Area map

Traditional Chinese Medicine Science and Technology Industrial Park of Cooperation between Guangdong and Macao

Government Information Bureau





A CRH380CL train at Beijing South railway station

Once this extension is completed, passengers coming to Zhuhai from the rest of the country via the existing Zhuhai-Guangzhou intercity high speed train could stop at Gongbei, hop over to another platform to catch Zhuhai's airport rail link to go to Hengqin or get on Macao's LRT East Line to go to Cotai. Gongbei, the world's busiest frontier post, is currently undergoing massive expansion.

Hengqin Port, which opened in 2020, is also expanding. Open 24 hours a day, it has a maximum capacity of 220,000 people a day and 80 million people per year. Hengqin Station, which is 60,000 sqm in size, is the second-largest underground railway station in China and is built to handle inter-city trains.

In his annual work report on 12 January, Zhuhai Mayor

Huang Zhihao said that the city government would press ahead with the Guangdong-Macao Intensive Cooperation Zone in Hengqin and that transport infrastructure linking Zhuhai and Macao will be improved, he said.

Huang said Zhuhai will also accelerate construction of the Hezhou New Area and Guangdong-Hong Kong-Macao Logistics Park and build a Hong Kong-Zhuhai-Macao Bridge economic zone.

With exciting economic opportunities arising across the GBA, Macao is perfectly placed to benefit from more convenient transport networks for tourists, workers and business people. China's railway revolution is picking up speed and Macao is at the beginning of a long and exciting new journey. ●

Macao Yearbook 2021 launches e-editions

2021



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APK VERSION

The Chinese, Portuguese and English electronic editions of Macao Yearbook 2021, which was compiled by the Government Information Bureau (GCS) of the Macao SAR (MSAR), is now available online.

The Macao Yearbook is a comprehensive chronicle. It outlines major events, details of progress achieved, and changes made in the course of Macao's political, economic, social and cultural development with the aim of promoting Macao and providing detailed information and data for all who wish to study and understand Macao.

Published annually since 2002, the trilingual Macao Yearbook is divided into four sections: Administrative Priorities of the MSAR Government; Calendar of Events; Review of the MSAR and Appendices.

Facing the unprecedented challenge of the Covid-19 pandemic, the Government implemented decisive measures according to its overall direction of administrative policies – "Fighting the pandemic, safeguarding employment, stabilising the economy, caring for people's livelihoods, implementing reform, and facilitating development". Macao Yearbook 2021 has fully chronicled these developments.

Since 2016, hard copies of the Macao Yearbook have not been printed in response to the growing popularity of online reading and the need for environmental protection. The yearbook is now available digitally only.

Interested readers can access the e-edition of the Macao Yearbook 2021 on the GCS website (<https://yearbook.gcs.gov.mo>) or scan the respective QR code on this page to download the Yearbook app.



SPORTS

Way of the mind warriors

The Japanese martial art of kendo has had a small but loyal following in Macao since the early 90s. The Macau Kendo Association Union aims to bring together practitioners and teach others about this ancient art.



Text **Erico Dias**
Photos **António Sanmarful**

The kendōka's gearing up post the warm-up session

(Opposite page)
Francis Cheung,
Chairman of the Board
of the Macao Kendo
Association Union

When people think of sword fighting, they may think of samurai or ninja films, Hollywood fantasies such as The Three Musketeers or swashbuckling pirate movies. But there are also sports and martial arts that use swords such as fencing and kendo.

Kendo – which directly originates from previous martial art forms as *gekiken* and *kenjutsu* and means the ‘way of the sword’ – is a Japanese martial art that was popularised at the end of the Edo period, which ran from 1603-1868 during the rule of the Tokugawa shogunate. However, its roots go even further back in time to the Heian period in Japan between 794 and 1185, where swords were not only seen as weapons but as the extension of the minds of the samurai warriors themselves.

In the early 20th century, kendo became widely established as a self-improvement sport embodying the spirit of the samurai. Kendo practitioners, or *kendōka*, today use equipment such as kendo armour (*bōgu*), kendo equipment (*kendōgu*), traditional Japanese trousers (*hakama*) bamboo sword (*shinai*), and are allowed to strike only four areas on their opponent's body - the head, wrists, torso, and thrust to the throat.

There are three types of related Japanese sword martial arts: kendo, *iaido* (practising the drawing of the sword) and *jōdō* (which focuses on defence and is practised with a *jō*, a short wooden staff).

There are three kendo practises: *kata* (form), *kiri-kaeshi* (combining attacking and receiving strikes), and *ji-geiko* (free practice to try out or come up with your own moves).

For grades below dan 1, there is no kendo examination, but *kakari-geiko* (impact practice) instead of fighting. The dan (rank) system in kendo starts from one to the highest 10, which nobody to date has received in kendo – the highest dan achieved so far is eight. In most parts of the world, *kendōka* are allowed to take the test up to dan 5 but to rise higher, you are only allowed to take the exams in Japan, South Korea or Taiwan. Kendo requires good physical strength – as the equipment is heavy, speed, agility and technique.

Born in 1973 in Hong Kong, Francis Cheung, Chairman of the Board of the Macao Kendo Association Union (MKAU) and *kendōka* stresses that kendo is about instilling values as well as offering mental and physical benefits. “The main purpose of the association is to form personality by virtue of practicing sword theory, and then produce physical agility, flexibility, instant reaction, endurance and correct posture. To mentally cultivate the habit of hard work, patience, vitality, concentration and decisiveness. In society, to develop a sense of responsibility and sociability, respect for each other, good manners, and good attitudes towards health and safety,” says the dan 5 *kendōka*.

Cheung explains that locals in Macao first began to practice kendo in the early 1990s. Not long afterward, the Sports Bureau established the Macao Kendo Club in 1995 and participated in kendo events around Asia. Since 2000, the club has participated in the triennial World Kendo Championship – with competitions held in Taiwan (2006), Brazil (2009), Italy (2012), Japan (2015) and Korea (2018).



“

When we practice kendo, there's a rule where we have to let go of anything that has happened outside the dojo.

– Francis Cheung

In 2005, students from different age groups and social backgrounds began enrolling in the club. The club expanded its activity and split into three different associations, each specialising in the sport's three different types of sword practice – Macau Students Kendo Association, Macau Iaido Association and Macau Jōdō Association. That same year the MKAU was established and registered with the International Kendo Association.

The MKAU has participated in domestic and international kendo competitions and exchange activities in mainland China, Hong Kong, Taiwan, Japan, Europe and the US. “Before the pandemic, we would

send our students and instructors to Yokohama, Japan, to join a training camp with other kendo trainees,” Cheung says. Over the past 10 years, the China Kendo Association has usually held a monthly competition and an annual national tournament (so far they have held tournaments in Guangzhou, Chongqing, Beijing, Shanghai, Wuhan and Changsha), which the MKAU participates in.

MENTAL AND PHYSICAL GROWTH

Cheung moved to Macao at a young age and today works as a project manager on the Cotai Strip and is the board chairman of MKAU. His own kendo journey

began in 1998, at the age of 25, after watching different Japanese action animations. “Back then, there was a TV advertisement introducing the Macau Kendo Association and my friend knew one of the members and encouraged me to approach them,” Cheung recalls. “After that, I contacted them and have been practising kendo ever since.”

From his 24 years of experience, Cheung recalls two moments that he'll never forget – the first when he entered his first competition in Hong Kong and the second when training in Japan. Having trained for a few months, Cheung entered a competition in his hometown and in his first round, he was challenged by

a Japanese boy in his teens. In shock, Cheung was defeated before he even knew it. He realised he needed much more practice than expected. On the second occasion: “During my time in Japan at a training session,” he recalls, “I picked this really old man as an opponent – but when we began to fight, he was so strong that I had no chance and lost.” This taught Cheung the lesson never to underestimate opponents, no matter the age, size or looks.

Since taking up kendo, Cheung has improved both physically and mentally – helping him to forget about day-to-day problems. “When we practice kendo, there's a rule where we have to let go of anything

that has happened outside the *dojo* (a room or hall used for practice by martial artists),” Cheung says. “This makes me relax and is the reason why I practise kendo till today and still enjoy it!”

Cheung has mainly participated in the World Kendo Championships and competitions in Hong Kong and mainland China. His greatest achievement was in 2000, when Cheung placed second in the Hong Kong kendo competition. In 2006, Cheung became an Association council member and according to the rules, he could no longer participate in competitions but could practice and train others in the sport.



A student geared up with the *Bōgu* (armour), and *kendōgu* (kendo equipment) mid-practice

(Left) Cheung and leong preparing for warm-up battle

leong Man Tai, a young
kendōka who is passionate
and committed to the sport

Cheung says that one of his mentors who helped him grow as an athlete and a person was Atsushi Tomioka from Japan. From 2003 to 2008, Tomioka practised kendo in Zhuhai every week and was hired to coach the Macao kendo team until 2006. Cheung watched him closely for a long period, asking questions and gaining knowledge about kendo. “Hard work, sweat and the time you put into practice, will ensure you learn the lesson,” are words that Cheung carries with him today from Tomioka.

KNOW YOUR KENDŌKA

Macao-born leong Man Tai, who is 25 years old, graduated from Taiwan University in 2019 and is currently working at MTR Railway Operations Company Limited Macao, while he practises kendo at night. Though leong has only been practising kendo for six years, his enthusiasm and commitment to the sport are immense. leong shows up to practice early and is completely focused once he sets foot into the dojo.

Compared with Macao, kendo is quite popular in Taiwan and leong decided to try it out after his roommate at university

suggested it. leong joined the university kendo club and has been practising the sport ever since. “One of the reasons I play kendo is that I enjoy the feeling of competition,” leong says. “I enjoy the feeling of anticipation during the competition and then using the skills that I’ve practised before.” In 2019, during his last year of university, leong was selected to participate in Taiwan’s college Kendo Championship – which he won.

While kendo is not as popular in Macao as in other Asian and some Western countries, many people do not have a clear idea of the sport and even confuse kendo with fencing, since the sports are similar – yet fencing is more popular since it is an Olympic sport, leong says.

Although the MKAU only has 20-30 regular members, it is a tight-knit community. leong explains that members have a close camaraderie as at times they share personal problems or go out to eat together. “The association is small but complete,” he says.

leong leaves us with a piece of advice: “Be patient, humble, stay focused and always give it your all. This helps me think clearly in achieving everything I wish for.” ●



ZOOM

Team China *Olympians* visit Macao

The Delegation of Elite National Olympic Athletes visited Macao, comprising top Chinese coaches, sportsmen and sportswomen who competed in the 2020 Tokyo Olympic Games.

Photos Government
Information Bureau

Team China's Olympians visited Macao on 19 December for a three-day visit. They received a heroes' welcome at the Hong Kong-Zhuhai-Macao Bridge by local students, after the athletes had spent 14 days in mandatory quarantine in Zhuhai following their visit to Hong Kong. The Olympians attended the celebratory flag-raising ceremony on 20 December to mark the 22nd

anniversary of Macao's return to Chinese administration.

Members of the 68-strong delegation included 2020 Tokyo Olympics' double gold winner in men's diving, Xie Siyi; gold medallist on the men's rings, gymnast Liu Yang; gold medallist in women's trampoline, Zhu Xueying; the first Chinese sprinter to reach an Olympic 100-metre final, Su Bingtian; table tennis Gram Slam winner, Ma Long; and the nation's first Olympic gold medallist in women's individual epee fencing, Sun Yiwen. Team China won a total of 88 medals – 38 gold, 32 silver and 18 bronze – last summer.

After meeting a host of young local athletes, community groups and taking in the best of Macao, the Delegation of Elite National Olympic Athletes left on 21 December. ●



- 1 The Delegation of Elite National Olympic Athletes to Macao arrived on 19 December to fanfare from more than 100 local students at the Hong Kong-Zhuhai-Macao Bridge
- 2 The flag-raising ceremony on 20 December is held annually to celebrate the anniversary of the establishment of the Macao Special Administrative Region
- 3 General Administration of Sport of China Deputy Director Yang Ning (left), who headed the delegation, met with Secretary for Social Affairs and Culture Elsie Ao Ieong U



④ The delegation visited the city's UNESCO-listed World Heritage sites – including the Ruins of St Paul's – after the flag-raising ceremony

⑤ Gold medallists Ma Long and Xu Xin demonstrate their table tennis skills with local athletes

⑥ Gold medallists Huang Dongping and Wang Yiliu showcase their badminton skills with local athletes

⑦ With around 500 local young athletes attending the dialogue session, the athletes shared the trials and tribulations of the path to Olympic glory





- 8 The delegation visited the newly open Athlete Training and Development Centre where some athletes tried out the centre's equipment
- 9 A large-scale evening gala and variety show was held at the Macao East Asian Games Dome, with the Olympians showcasing their skills
- 10 The athletes visited one of the General Union of Neighbourhood Associations of Macao's integrated services centre in Seac Pai Van, where they met and played games with residents
- 11 They also sat down and got their hands dirty making glutinous rice balls to celebrate the Winter Solstice festival



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⑫ The Delegation of Elite National Olympic Athletes dropped by one of the Macao Federation of Trade Unions' integrated services centres, where they joined the children and their parents in preparing for a traditional lion dance



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⑬ Team China and local athletes bid farewell to one another as the sporting heroes left Macao on 21 December after spending three days in the city

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