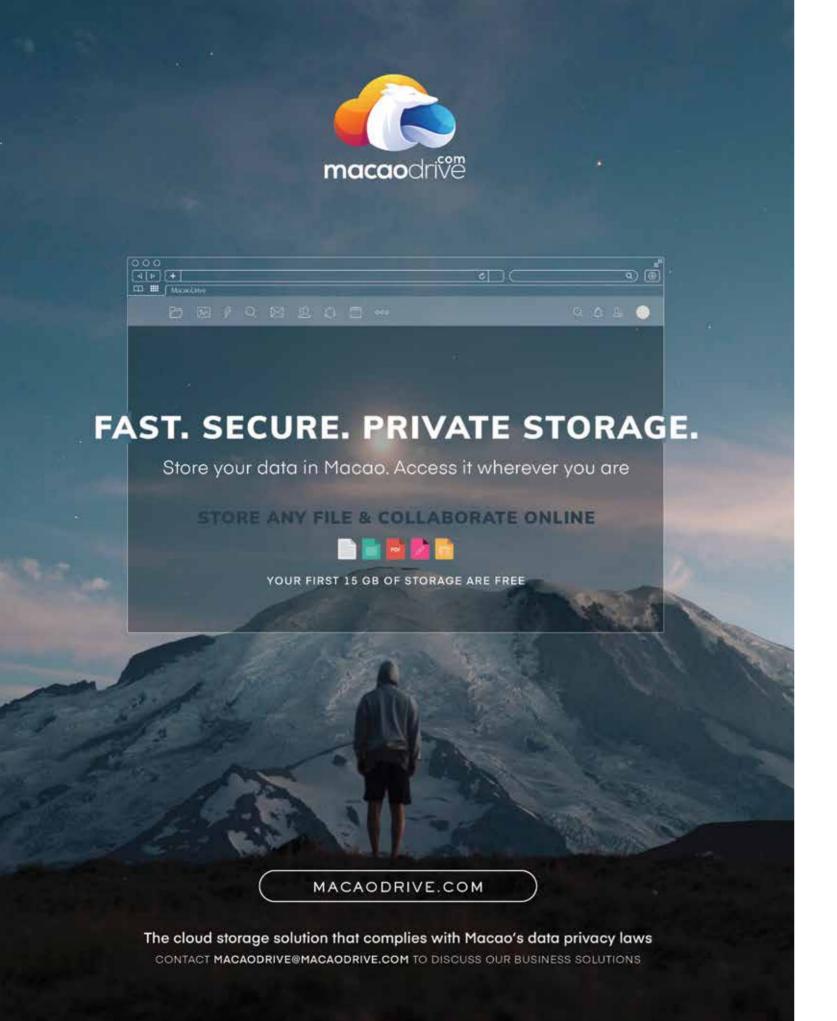
Macao 澳門





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Cover image Macao Chief Executive Ho lat Seng announces new immigration control measures at the 24 March press conference by Cheong Kam Ka

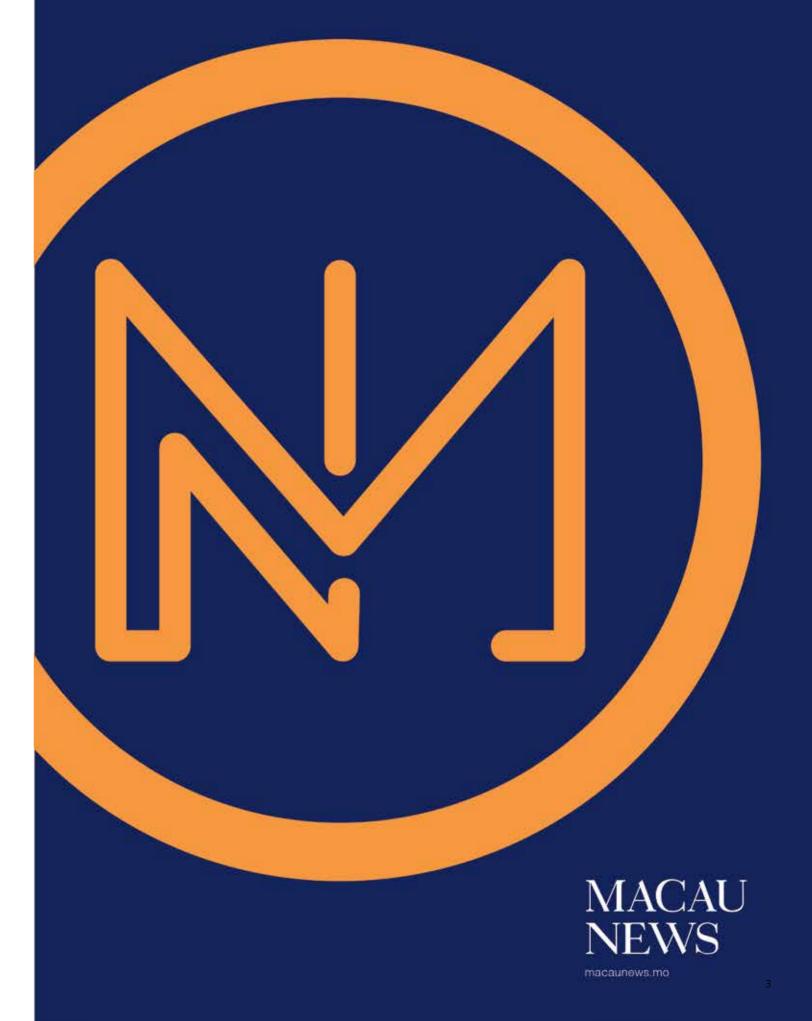
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From the Editor

Macao's courage, determination and strength

The past two months have been one of the ▲ most difficult periods in Macao's recent history. The outbreak of the COVID-19 virus plunged the whole world into a crisis. But, since the first cases of the virus were announced in Macao in January, two things have happened that have set our city apart. Firstly, the people have supported each other, followed the health and safety guidelines and worked together to make sure that the damage caused by this virus has been kept as minimal as possible. Secondly, the government has enacted extraordinary measures to combat the spread of COVID-19, putting the lives of the people above all else.

Until new cases in Macao were announced in mid-March, the government had allowed life to return pretty much to normal within just two months after the first cases had been reported. The territory may not be 'back to normal' just yet due to the new cases but the government's response from day one has allowed Macao's society to learn the best ways to deal with the epidemic and has motivated everyone to get through it together.

Just over one month after being sworn in as Macao's Chief Executive, Ho Iat Seng took the lead in fighting the coronavirus. Since then, he has determined strong and extraordinary measures that have led to the temporary closure of public services, schools, universities, gaming establishments and entertainment areas while also providing financial assistance to companies and residents. Ho has also imposed important immigration control measures to minimise the risk of infection while making sure there has been an ample supply of surgical masks

for the entire population. These measures have been praised not only in Macao but also internationally.

This difficult period has also seen a surge of new technologies that the government has cleverly used to communicate with residents on instructions and measures to be taken to prevent the spread of the virus. The government's actions and the population's response is, in fact, our main feature in this issue, which aims to show what has been done and how it has been done.

During a time where Macao's tangible attractions have been closed or inaccessible, we take the opportunity to dive into our city's intangible heritage - from our processions to Cantonese operas - so that readers can learn about the city beyond its facade. A story on Macao's famous personalities who stood out in the territory once upon a time also shows our city's rich and diverse history of bringing together people and talents from across the world.

Looking at the cross-section between business and Portuguese-speaking countries, we talk to the people behind the Macao Young Entrepreneur Incubation Centre to learn about their progress and hopes and how they are bridging entrepreneurial talent between Macao, China and Portuguese-speaking countries. And on a worldwide scale, we look into the booming agricultural sector in Angola, a country which has huge untapped swathes of arable land.

It is a tough time for us all at the moment but we will get through this epidemic and, once it is over, we will all emerge stronger, wiser and closer as a community.

> Gonçalo César de Sá Editor-in-Chief



At all costs

Text Gonçalo César de Sá and Christian Ritter Photo Cheong Kam Ka

Chief Executive Ho Iat Seng announces a number of new measures concerning entry into the city just as we went to print.

Since 22 January, Macao has been part of the global new coronavirus pandemic. It has been a difficult period for the city and, as of 24 March, new imported cases were still being announced in the territory which has "brought about increased pressure for the city to battle this epidemic" according to Chief Executive Ho Iat Seng.

At a press conference held on 24 March, Chief Executive Ho Iat Seng announced stricter rules concerning entry into Macao – and these rules affect travellers from the Mainland, Hong Kong and Taiwan. Besides suspending the transit of passengers at Macao's airport, these measures, which came into force on 25 March, ban travellers from the Mainland, Hong Kong and Taiwan who have been overseas – and that means any country outside of China and its regions – in the past 14 days from entering the SAR.

Residents of Mainland China, Hong Kong and Taiwan who haven't visited a foreign country, Hong Kong or Taiwan 14 days prior to arriving in Macao can enter the city but will need to go through a six-to-eight hour medical examination if they come from a region where there is a high incidence of novel coronavirus pneumonia cases.

Mainland China, Hong Kong and Taiwan residents who visited Hong Kong or Taiwan 14 days prior to their arrival to Macao are subject to 14 days of medical surveillance at a government-designated hotel (informally known as "quarantine hotel") at their own expense, at one of the eight hotels (providing about 2,100 rooms) that have been designated by the government for such purposes.

On the topic of hotels, Ho expressed the government's challenge of finding additional hotels that could be used as quarantine centers. He appealed to the city's gaming operators to shoulder more social responsibility and if any of them would be willing to make their hotels available, it would facilitate the management of these centers.

Ho Iat Seng added that non-locals who have visited China's Hubei province or non-resident workers who have been in the Mainland over the past 14 days can only enter Macao after obtaining a medical certificate confirming that they had not been infected by the novel coronavirus but that after the epidemic settles, the local authorities will appeal to the Central Government to reinstate the Individual Visa Schemes for tourists to travel to Macao as soon as possible, in a bid to stimulate the economy and its small and medium enterprises.

The Chief Executive said that he was sure that with these new measures the situation in Macao would improve but he admitted that it was difficult to predict what happens next because the virus itself is 'unpredictable'. Ho lat Seng, however, praised the people of Macao for their behaviour during

this period and asked for 'optimism and tolerance' from everyone in the territory. He also thanked the local students who have been returning from overseas over recent days, as well as their parents, for their co-operation in the government's epidemic prevention work, which includes 14 days of mandatory quarantine for the returnees at the government's expense.

Ho Iat Seng said the new measures were necessary in order to protect the health of all of Macao's residents and that the present measures have prevented a community contamination. He warned that if only one to three per cent of the returning students tested positive for the virus, it was probable that it could spread throughout the community if they did not spend two weeks in a 'quarantine hotel'. Ho said that the epidemic has been a 'big test' for his government, which took office on 20 December but that the government would do "everything in their powers, and at all costs, to prevent the outbreak of the epidemic." He also acknowledged that Macao's unemployment rate will go up - it stood at 2.3 per cent in January.

Despite the news, however, the city has worked together in unison since 22 January. But it has been a long, hard road so far – one we will take you through over the following pages as we look at Macao's courage and determination in the face of COVID-19.



Over the past few months, the world has entered uncharted territory. As the new coronavirus has spread its wings so too has fear, uncertainty and, at the same time, a sense of community and courage in the face of adversity, no matter where you are experiencing this pandemic across the globe. And it's been no different in Macao. In fact, the city has shown the world how it's possible to battle the spread of the virus if everyone in society pulls together as a team.

On 24 March, the 'end' was not yet in sight and the fight to battle the virus epidemic was still ongoing due to new imported cases but, despite this, it's worth looking back over the past couple of months to show how the city has coped and worked together during what is now a serious global crisis.

At the turn of the year, the coronavirus was largely unknown. But it wasn't long until it was identified as the coronavirus disease 2019 – or COVID-19, as it has been labelled by the World Health Organisation (WHO) (in Mainland China, the disease is known as 'novel coronavirus pneumonia'). It was first reported in the central China region between December and early January and, as that happened, many people in Macao grappled with a

distant sense of déjà vu, especially those who'd lived through the famous public health alert of 2003. During the epidemic outbreak of severe acute respiratory syndrome – better known as SARS – 17 years ago, which infected more than 8,000 people and claimed nearly 800 lives in 29 countries and regions, the city had remained mostly unscathed except for one imported case when southern China was embroiled in the virus spread.

The city's prevention efforts, under the leadership of the government and with the support of the community, have effectively contained the spread of the virus.

However, from 22 January, it was plain to see that this new outbreak in town was on a completely different level. According to the European Centre for Disease Prevention and

Control under the European Union, hundreds of thousands of COVID-19 cases and thousands of deaths have been reported in 120-plus countries and regions, leading to the WHO designating the spread as a pandemic on 11 March. The outbreak, which has spread from Asia to other parts of the world in a matter of weeks, has caused - and will continue to cause for some time yet - major disruptions to the daily life of millions with curfews imposed, heightened border restrictions and subsequent economic damages. And that's not to mention the death of loved ones to the virus.

Macao, which has established itself as a major tourism destination over the past decade, faced a battle from 22 January, which was the day the first COVID-19 case was confirmed in the city. From that moment, a sense of gloom hung over the territory with the tally surging to 10 in the following two weeks and the approaching of the Chinese New Year holiday that would have meant crowd gatherings and an influx of visitors. But the situation has largely stabilised since 4 February, thanks to the comprehensive and timely response by the government alongside the support and collaboration from all walks of society to curtail the virus infections.



There have been new cases in the city since 15 March after the SAR had stayed virus-free for nearly 40 days. As of 24 March, the number of total cases stood at 26 with the last case being announced on 24 March of a 17-year-old girl who had been studying in the UK. Macao has survived some of its worst days in recent memory through strength,

determination, effective measures by the government and a sense of community unity like never before.

A quick-acting government

As soon as the first COVID-19 cases emerged in Wuhan, Hubei province, Macao's government went on the defensive. And it has kept

its guard up since early January with temperature screenings at border checkpoints and constant communications with the health authorities in Mainland China. A day before the first local case was reported on 22 January, the administration announced in a dispatch the establishment of the Novel Coronavirus Response and

THE TIMELINE

What happened in Macao from the outbreak until we went to print



Tue 21 Jan

Macao's Novel Coronavirus Response and Co-ordination Centre is launched



Wed 22 Jan

First case is confirmed in Macao at midday. CE Ho lat Seng meets with Zhong Nanshan, a Chinese epidemologist and pulmonologist who was pivotal during the fight against SARS in 2003

Thu 23 Jan

The government reinforces its border prevention measures and facemasks are distributed for the first time



Mon 27 Jan

Medical certificates are required for Hubei visitors entering Macao from today and no one is allowed entry to the entertainment complexes if they've been in Wuhan 14 days prior. Police also repatriate 144 Hubei visitors





festivities are cancelled







From left: Chief Executive Ho lat Seng and Secretary for Security Wong Sio Chak review disease control measures at the Border Gate Checkpoint in late January; the Chief Executive visits the Areia Preta Health Centre also in late January to review the sale arrangements of facemasks

Co-ordination Centre, directly headed and supervised by Chief Executive Ho Iat Seng with the Secretary for Social Affairs and Culture, Ao Ieong U, as the vice-chairperson.

The centre – comprising more than 20 representatives from government departments like the Public Security Police Force, the Health Bureau, the Economic Bureau and the Macao Government Tourism Office (MGTO) – is in charge of planning, guiding and co-ordinating public bodies and private entities to carry out works for the prevention and control of the virus spread.

Operating around the clock, the centre has the capacity to adopt different measures to impede the coronavirus spread after constantly assessing the latest virus situation, the government dispatch said.

Shortly after the opening of the centre, on 5 February, Chief Executive Ho addressed the city in an open letter to Macao's nearly 680,000 inhabitants. In the letter, he pledged to protect the people's health and life 'at all costs', also ensuring public order and security so that the territory could return to normality as soon as it could.

He thanked the people for their 'understanding and support' and also expressed his gratitude to public servants' 'arduous' work in preventing and fighting the virus.

Given Mainland China, in particular the central Chinese province of Hubei, was hit the hardest by the disease at the onset, with more than 81,170 cases reported as of 24 March, the coronavirus response centre promptly imposed border restrictions at the checkpoints with the Mainland in the early stage.

The government announced on 23 January that it has collaborated with >

THE FACE LEADING THE FIGHT

Chief Executive Ho lat Seng

No one has been more involved and recognisable than Chief Executive Ho lat Seng.

As soon as COVID-19 reached Macao, the Chief Executive made a momentous decision that was lauded by the public for putting the general welfare of the SAR's populace over anything else: he ordered all gaming establishments to close for two weeks from 5 February. It was seen as a move that gave Macao the upper hand against the rapidly spreading virus.

Ho also set up the Novel Coronavirus Response and Coordination Centre, as well as signing an executive order that all civil servants be exempt from work for a certain period, with the exception of those working in essential departments. All civil servants have since returned to work. On 22 January, he also met with Zhong Nanshan, a renowned respiratory expert and head of a high-level team at the National Health Commission to prepare a strategy for Macao in the face of the outbreak.

In a letter to residents in February, the Chief Executive thanked the public for their 'understanding and support' while also expressing his gratitude to public servants' 'arduous' work in preventing and fighting the virus. He promised that his government would ensure there is adequate protective gear for medical professionals and law enforcement officers, while also pledging to protect Macao's health and life 'at all costs' to return to normality.

Ho has also stipulated that from 18 March all non-Macao residents are banned from entering the territory, except residents from the Mainland, Hong Kong and Taiwan, as well as non-resident workers employed in Macao. An executive order signed by Ho states that in the public interest – namely for the prevention, control and treatment of diseases, aid and emergency measures and ensuring Macao's normal operation and the provision of daily necessities for residents – the city's health authorities can in exceptional cases lift the entry ban on foreign nationals. As of 24 March though, residents from Hong Kong and Taiwan will have to undergo a 14-day quarantine upon entering the territory.





Tue 28 Jan

Public services close until the end of January while China suspends tourist travel permits to Macao and Hong Kong



Schools and tertiary institutions close as Hong Kong's sea links are suspended



Fri 31 Jan

The wealth-sharing handout is brought forward to April and special support measures for SMEs are prepared



Chief Executive Ho lat Seng announces the closure of all the gaming establishments for two weeks as the ninth and 10th cases are confirmed. The air and sea links with Hong Kong are also suspended



Thu 6 Feb

As the first COVID-19 patient recovers and is discharged, Macau Postal Savings closes and the government bolsters street cleaning to help fight the coronavirus



Wed 5 Feb

The entertainment complexes close for 15 days and the Chief Executive thanks the population for their 'understanding and support'



FACES LEADING THE FIGHT

Secretary for Economy and Finance Lei Wai Nong

The daily press conferences have been crucial to not just the press in Macao but for the public at large to stay up-to-date throughout the outbreak. A team of high ranking officials regularly participate in these conferences, including Lei Wai Nong. On 20 February, he announced a raft of economic measures that had been created in the hope of alleviating the economic burden on residents and businesses due to the COVID-19 outbreak. He was also the government secretary who announced the reopening of the city's gaming establishments on 17 February.

On 31 January, Lei announced that the government will be

nearby Zhuhai city in Guangdong

Gongbei Border Gate - the city's largest border checkpoint in terms of visitor traffic - has been shortened. while individuals who have visited Hubei province in the past 14 days

bringing forward the annual wealth-

As Lei shared on 13 February,

the financial support measures will

cost the government a total of MOP

20 billion (US\$2.5 billion).

Some of these measures

include company profit

tax deductions for the

2019 financial year,

personal income tax

reduction, bringing

wealth-sharing handouts,

forward the annual

additional health vouchers,

consumption e-vouchers and

residential property tax exemption,

as well as water and electricity fee

He also shared, on 6 March, that

exemption from March to May.

the government was expecting a

billion (US\$5 billion) this year.

budget deficit of more than MOP 40

sharing handout to next month.

or people from the central Chinese province cannot enter Macao except with the presentation of medical certificates proving they are virus-free.

The strategies to limit the movement of travellers across the border also apply to non-local workers and residents. All migrant workers who have visited Mainland China in the past two weeks before arriving to Macao have undergone 14 days of quarantine in designated locations either in nearby Zhuhai or in the territory since 20 February. Residents travelling to and from Macao and Zhuhai 'multiple times' a day, as well as individuals who have been to several parts of the Mainland in the past 14 days, have to undergo a medical examination that may last from between six to eight hours upon arrival in the city.

As the virus has moved beyond China with a spike in the number of confirmed cases in other parts of the world over the past few weeks, the Macao government has reviewed and gradually stepped up its restrictions at border checkpoints. As of 24 March, Macao has barred entry for all non-residents, and residents from Hong Kong and Taiwan will have to undergo a 14-day quarantine upon entry to the city. A government statement dated 18 March noted the latest string of measures is to

'safeguard the health of Macao residents' given the continuous surge of confirmed cases in other parts of the world. Other than restricting the flow of visitors across the border, the administration has also launched an array of measures to minimise the mobility within the city.

In the early stage of the outbreak, the government cancelled all the festivities scheduled for the CNY holiday in late January to avoid crowd gatherings, as well as the closure of parks, mountain tracks, public leisure areas, public libraries and museums since early February. These have all since reopened to the public.

The non-emergency service of all public bodies was suspended from the CNY holiday until 16 February and all local schools have been closed since the CNY holiday. Though public bodies have gradually resumed operation from 17 February amid signs of stabilisation in the city and across Mainland China, anyone and everyone still has to wear a facemask, fill in a health declaration form and accept a temperature check before entry, while all passengers have been required to wear masks on buses and the Light Rapid Transit (LRT) railway since earlier in the same month.

Macao's Higher Education Bureau (DSES) said in a statement on 18 March that six of the city's 10 tertiary education institutions will gradually resume on-campus classes on 1 April. According to the statement, the Macao Polytechnic Institute (IPM), Macao Institute for Tourism Studies (IFTM). Public Security Forces Academy, University of Saint Joseph (USJ), Kiang Wu Nursing College and Macau Institute of Management will gradually restart

classes on 1 April. Macao's primary, secondary and tertiary education institutions have been closed since Chinese New Year in late January. However, many of them have been conducting online

lessons in the meantime.

The government attaches great importance to reassuring the public and enhancing their awareness of the disease in combatting the



province to forbid any person with symptoms of fever travelling across the border. Since 27 January, the opening hours of the Macao-Zhuhai

Mon 10 Feb

It is reported that 80 per cent of the city's restaurants have been affected by COVID-19



Tue 11 Feb (

Macao and Hong Kong citizens are barred from Taiwan while Art Macao 2020 is cancelled

Wed 12 Feb

As 26 hotels close, the government urges people to stay at home 'at this critical moment' of fighting the virus



Fri 14 Feb

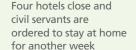
The city marks 10 days with no new COVID-19 cases as the 2020 MIECF is cancelled



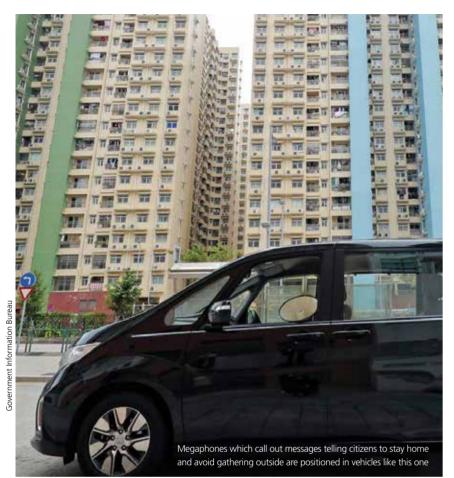
Thu 13 Feb

The government announces economic assistance measures for residents





Fri 7 Feb



pandemic. The Novel Coronavirus Response and Co-ordination Centre has held a daily press briefing since its inception with all the relevant information available on its official website and across social media platforms. Private vans and automobiles with loudspeakers have also run across the city to remind the public to stay indoors and be vigilant. The government - which has notably kept a permanent supply of food and essentials coming into the city - has also published the daily quantity of imported fresh food since the start of the outbreak to keep 'panic buying' at a minimum. Maintaining a high degree of information transparency, the government also ensures the supply of facemasks for residents and migrant workers with a dedicated purchase scheme to alleviate public anxiety about the protective supplies.

One measure that was taken by the Hong Kong government for a period after 4 February was the suspension of ferry sailing services between Hong Kong and Macao. And at the 16 March's regular press conference, Inês Chan Lou, who heads the Licensing and Inspection Department of the Macao Government Tourism Office (MGTO), announced that from 17 March to 31 March, the government was offering transport to Macao for Macao residents who arrive at Hong Kong's airport from Europe.

The offer came after the Hong Kong government previously announced that, with effect from 17 March, all those who have been to any of the nations in the Schengen Area - an area comprising 26 European countries, from Norway to Portugal - within the past 14 days prior to their entry into Hong Kong will have to go into quarantine for 14 days there. By 23 March, the Hong Kong Chief Executive Carrie Lam had announced non-residents would be completely banned from entering the city for 14 days. Macao's government previously announced that with effect from 18 March, all those who have been to the Schengen Area within the past 14 days prior to their entry into Macao will have to stay under medical surveillance for 14 days.

Harald Brüning, The Macau Post Daily newspaper director, says that Chief Executive Ho Iat Seng's recent order to impose a blanket ban on foreign visitors 'appears, at first glance, to be rather draconian but 'it's absolutely necessary to protect our city from the novel coronavirus menace'. He says: "Drastic measures are, in my view, the best way of tackling a virus that is not only highly infectious but, apparently, has the morbid predilection to kill the elderly with underlying health issues, a situation that calls for civil society's commitment to collective responsibility and solidarity among different generations."

Brüning adds that Macao 'has so far been the central government's best pupil' in the fight against the spread of COVID-19.

Patient recoveries

Treatment has also been an important part of this fight. A coronavirus isolation ward was set up

at the public Conde de São Januário Hospital Centre for treatment of all COVID-19 patients in the city. The public health centre in Coloane, the Hotel Pousada Marina Infante in Taipa, the Golden Crown China Hotel, which sits opposite to the local airport in Taipa, the Regency Art Hotel also in Taipa, the Grand Coloane Resort by the Hac Sa beach, the Metropole

FACES LEADING THE FIGHT

Secretary for Social Affairs and Culture Ao leong U

Ao leong U is the vice-chairperson of Macao's Novel Coronavirus Response and Co-ordination Centre. Over the weeks in the daily press conferences, she has announced measures related to her portfolio in health, tourism

and education.
On 22 January, Ao
leong announced that
the Chief Executive had set
up the response and co-ordination
centre. Its intended use is as a coordination point for measures in
preventing, controlling and treating
COVID-19 in Macao. She also

announced that the government, as of 4 February, had no intention of closing the city's borders as many non-resident workers and

local residents live in Zhuhai.

On 7 March, at the press conference for bringing back the Macao residents from Hubei, Ao leong announced the success of

the evacuation mission and thanked everyone involved in the evacuation for their co-operation.

She also made the announcement on 10 March that non-tertiary schools will reopen no later than 20 April.



Mon 17 Feb

While public services partially resume, the self-filled health e-declaration is introduced, plus migrant workers who've been in Mainland China for two weeks prior and want to return to Macao need 14 days of quarantine



The Procession of the Passion of Our Lord Jesus is cancelled



Wed 19 Feb

Stricter border controls are issued for Macao residents who cross three or more times a day



Sixteen of the 29 hotels and 29 of the 41 gaming establishments reopen



Wed 26 Feb

Macao's Science Centre axes all activities until the end of March



Mon 24 Feb

The city marks 20 days with no new COVID-19 cases



FACES LEADING THE FIGHT

Secretary for Administration and Justice André Cheong Weng Chon

Upon the closure of all public services, André Cheong Weng Chon called on private companies to follow the government's decision and temporarily close. He also asked that employees stay at home and avoid areas with concentrations of people.

Cheong is one of the secretaries who led and organised the evacuation mission of Macao

residents from Hubei on 7 March. He also stressed that it was part of the government's responsibility

to look after local residents' interests and that the cost incurred was of no particular importance. For a second airlift of the remaining 110 Macao residents in Hubei, he said as we went to press that

the government was still assessing the situation before deciding on another evacuation.

Hotel, the Treasure Hotel, San Tung Fong Commercial Inn South Wing and the Grand Lapa hotel are being used for quarantine as of 24 March.

All the first seven cases reported between 22 and 27 January were individuals from Hubei travelling to Macao before testing positive for the coronavirus. The following three cases were Macao residents, including a 29-year-old woman who works in the floral department of an entertainment complex and

a 57-year-old male who works as a coach driver for a local gaming operator. The first case in the city after being virus-free for nearly 40 straight days was discovered on 15 March. The imported case was a Korean flight attendant based in the city, who had come back from Portugal with her boyfriend. The following cases quickly unravelled over the following days with the return of hundreds of residents coming from high-risk COVID-19

countries such as Portugal, the UK and Australia.

Except for the latest cases, all the first 10 patients were discharged from hospital, with the last one recovering and leaving on 6 March. According to a message relayed by the Macao government on 6 February, the first confirmed case here, a 52-year-old Wuhan woman, expressed gratitude for the care of Macao medical professionals during her stay. The message read: "I feel warm and moved and [they] have treated me like I'm part of the family. Coming to Macao is one of the fortunate things among the misfortunes in my life."

Business matters

All the measures taken by the Macao authorities and the central government to curtail the outbreak have been effective. But the strategies also have significant implications for Macao businesses and the tourism-reliant economy that welcomed 39.4 million visitors last year. Mainland China has stopped issuing new visas under the Individual Visit Scheme (IVS) for those from the Mainland to visit Macao since late January, as well as suspending all overseas tour groups including package tours to the city.

Together with heightened border restrictions, the Macao tourism market – with 70 per cent of total visitors coming from the Mainland – has suffered a major blow. According to the official data, the number of visitors to Macao last month plunged

by 95.6 per cent year-on-year, deepening a decline of 16.8 per cent in January when the coronavirus had not yet made a profound impact.

Aggravating the situation is another extraordinary move adopted by the local authority to fight COVID-19: the temporary closure of the gaming establishments, which was announced by Chief Executive Ho Iat Seng at the start of February. All 41 gaming venues were ordered to shut down between 5 and 19 February to minimise the risks of

FINANCIAL AID

In view of the virus' impact on the local economy, the government announced on 13 February a string of support measures to relieve financial burdens on individuals and local businesses. Here's an overview of what was announced...

- The government expects to spend MOP 20 billion (US\$2.5 billion) on measures to support Macao's economy, including increased spending on infrastructure projects.
- Spending is expected to increase to MOP 27 billion (US\$3.4 billion) after including the annual 'wealth-sharing' handouts that the government will start distributing to citizens next month.
- There will be profit tax deductions of up to MOP 300,000 (US\$37,500) for the 2019 financial year, benefitting 2,970 Macao companies.
- There will also be a 70 per cent rebate on 2018 personal income taxes, with a maximum rebate of MOP 20,000 (US\$2,500), benefitting 170,000 employees.
- The standard 25 per cent deduction on taxable income granted under Macao's Professional Tax Law will be increased to 30 per cent for 2020, benefitting 180,000 employees.
- Residential households are exempt from paying 2019 property taxes, covering 180,000 households.
- There will be a 25 per cent property tax reduction on

- commercial units, covering 25,000 commercial premises.
- There will also be a six-month exemption from paying the five per cent tourism tax, benefitting 854 businesses like hotels, bars and gyms.
- 'Special' interest-free loans of up to MOP 600,000
 (US\$75,000) will be offered to local SMEs that have been operating for less than two years. They will be repaid within eight years.
- Annual health vouchers worth MOP 600 (US\$75) per person for permanent residents will be given out twice this year instead of the customary annual one-time vouchers.
- The government will fully subsidise all residential households' water and electricity bills for three months.
- An additional two months of financial assistance will be provided to disadvantaged families assisted by the Social Welfare Bureau.
- MOP 3,000 (US\$375) consumption e-vouchers in the form of Macau Pass cards to be issued to each local resident after the epidemic has eased in order to boost local consumption and benefit SMEs in various sectors.



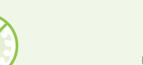
Mon 2 Mar

All public services return to 'normal'. Public libraries reopen with special arrangements



The city marks 30 days with no new COVID-19 cases. Japan imposes a 14-day quarantine period on Macao visitors and Thailand classifies Macao as 'high-risk for COVID-19'





Fri 6 Mar
The city's last pre-15
March case is discharged

Sat 7 Mar

A total of 57 residents who were stranded in Hubei are airlifted back to Macao as the city's Catholic churches reopen



Tue 10 Mar

Government plans reopening of schools no later than 20 April



Sun 8 Mar Macao imposes

quarantine on arrivals from Japan, Germany, France and Spain



19



cross infections. Though it was not the first time all gaming venues in the city have come to a halt – the operation was suspended for 33 hours when Typhoon Mangkhut hit the city in 2018 – the actual duration was unprecedented.

The gaming sector, accounting for a whopping share of about 85 per

cent of the government income, has thus far crashed. Figures from the gaming regulator DICJ show that gross gaming revenue fell drastically by 87.8 per cent year-on-year to MOP 3.1 billion (US\$387 million) in February, the largest decline on record, after a decrease of 11.3 per cent in January. The performance in

the next few months is still expected to be poor because most travel and border restrictions have remained in place while the entertainment complexes have reopened since 20 February with only half of their existing gaming tables in operation to ensure the health of workers and gamblers. "The industry will have

varied rates of recovery," says Eric Coskun, director of casino projects at Macao-based gaming consultancy IGamiX Management and Consulting Ltd. "Mass gaming will take quite some time to get back to pre-COVID-19 levels and, as such, the operators need to put together some irresistible packages for hotel rooms and other amenities."

As more than one-fifth of Macao's local labour force is employed in the gaming sector, local officials have gone to great lengths to urge all the six gaming operators in the city not to sack any workers, cut salaries or force them to take unpaid leave, guaranteeing local employment to overcome the tough times together. And the operators have so far apparently heeded the government's call.

According to Galaxy
Entertainment Group, its gaming
staff were placed on standby at
home during the 15-day gaming
closure, while some workers
remained on duty. "In light of the
outbreak of COVID-19," says Buddy
Lam, senior vice-president of public
relations at Galaxy Entertainment
Group, "GEG has been working
closely with the relevant
departments to adopt and support
all protective measures laid out by
the Macao SAR government."

"The company's existing measures to protect the health of guests and team members during this medical crisis," says Wilfred Wong, president of another gaming operator, Sands China, "are being strictly enforced and will continue to be monitored and strengthened •

FACES LEADING THE FIGHT

Health Bureau (SSM) director Dr Lei Chin Ion

Dr Lei Chin Ion has played a crucial role in directing Macao's medical units with great diligence. He introduced the measures for residents to follow in slowing the spread of COVID-19 in the city and he has also been present for nearly all of the important announcements at the daily press conferences, including the announcement of the first COVID-19 case on 22 January.

Lei announced, on 28
February, the government's decision to re-open entertainment venues, such as cinemas and gyms. On 6
March, he shared the good news that the 10th COVID-19 patient had been discharged. He was also part of the team who organised the chartered flight bringing home

evacuees from Hubei on 7 March, overseeing the medical units at the command centre. He admitted that doing this entailed a 'very high' risk for Macao's COVID-19 situation

and that the risk needed to
be borne by the
'whole community'.
Speaking just
before we went to
print, Lei said that the
local government had
decided to ban foreign
visitors from entering
Macao because the city's

isolation and medical facilities would not be able to cope with a large number of possible COVID-19 patients from high-risk countries. He added that the government's major task is to tackle the potential risk resulting from a large number of Macao students returning home from overseas.



Sun 15 Mar

After 39 days without a case, Macao records its 11th case. Also, arrivals from Schengen Area countries now subject to 14-day quarantine

Mon 16 Mar

Macao's government implements new quarantine measures



250 Sept. 10 Sept. 10

Tue 17 Mar

The 12th case of the virus is confirmed in the city and the government bans all non-residents entry to the territory from midnight on 18 March

Wed 18 Mar

The 13th, 14th and 15th cases are confirmed as non-resident workers from overseas are banned entry to the SAR. Also announced: six of 10 tertiary education institutions will resume on-campus classes on 1 April



Fri 20 Mar

It is announced that there are now five government-designated hotels being used for quarantine measures as Macao looks ahead to the coming days and weeks in its fight against the spread of COVID-19



Thu 19 Mar

The 16th and 17th cases are confirmed as the postponement of classes for non-tertiary level students is extended. The MGTO also issues a 'Level 2 travel alert' for all foreign countries and territories



FACES LEADING THE FIGHT

Head of the Centre for Disease Prevention and Control of the Health Bureau (SSM) Dr Lam Chong

Dr Lam Chong and his team have been closely studying the COVID-19 situation to better prepare Macao's prevention and control measures and regulations. He has consistently kept to his stance that Macao should not lower its guard as there might still be a possibility that the virus situation will change, as has happened in the

The centre has done its best in tracking down those who've been in

few days before we went to press as

new cases were announced.

contact with COVID-19-positive cases and bringing them in for guarantine, as well as executing plans

> and legislation to fight the virus. Dr Lam Chong Chong's team has also tracked down tourists who have tested positive for the coronavirus elsewhere after visiting the city and it has consistently co-

ordinated with health authorities from other countries when Macao citizens are found entangled in COVID-19 situations, such as being stuck on a cruise ship.

as necessary. Sands China stands together with the people of Macao as the city unites to safeguard the health and safety of the public. We will fight this virus all together. The city will recover and life will go back to normal soon."

Not only have the gaming operators worked hard to resume normal business volume but so

have Macao's other business sectors. In addition to gaming venues, other entertainment venues - namely, salons, cinemas, gyms, bars and nightclubs - were also ordered by the government to suspend operation in February until reopening on 2 March. During the gaming hiatus, a total of 29 hotels also closed their doors due to the

Although the atmosphere has been tense, the community has remained in an orderly manner as residents are confident with the government.

shortage of visitors. Most of these, though, have gradually reopened alongside the gaming venues.

However, many small and medium-sized enterprises (SMEs), particularly those in tourist districts like the city's downtown, are facing some tough times due to the pandemic. Local SMEs face huge financial pressure as they are struggling with lower income and running expenses like rents and salaries for workers at the moment, illustrates Lei Cheok Kuan, chairman of the Industry and Commerce Federation of Macau Central and Southern District. "Some SMEs have closed for about a month over the lack of customers," he says. "Although there have been signs



Sun 22 Mar

As the 18th, 19th and 20th cases are confirmed, a seventh round of facemask distribution begins, plus three extra hotels have now confirmed they can be used for quarantine and fuel suppliers have been asked to slash their prices

Mon 23 Mar

Total cases up to 25. Another hotel confirmed for quarantine and Hong Kong's new immigration controls include everyone entering the SAR from Macao needing to undergo quarantine for 14 days



Macao's rules: travellers from the Mainland, Hong Kong and Taiwan who have been overseas in the past 14 days are now barred entry to the territory





MOP 3,000 (US\$375) electronic

permanent residents are entitled

to with the aim of boosting local

vouchers permanent and non-



From securing mask supplies and gaming establishment closures to a wide range of financial support measures, the works of the government in this combat of COVID-19 have been widely acknowledged and praised by the public. An online survey, called 'Opinions of Macao Residents on COVID-19', conducted by the Macao Polling Research Association between 6 and 14 February shows nearly 88 per cent of 3,236 interviewees expressed satisfaction

towards the administration during this health crisis, while 97.5 per cent regarded the information provided by the government as 'helpful'. More than 90 per cent of the subjects polled also indicated they now wear facemasks all the time and wash their hands more often than before, while 84.6 per cent have expressed confidence that the virus situation in Macao would be under control. according to the association.

A deserted Cotai Strip during the closure of Macao's entertainment complexes

This public confidence could not be cultivated with the government's endeavours alone but also the community participation from



consumption and driving the business volume of local SMEs. Tue 24 Mar Residents can use the consumption Chief Executive Ho lat Seng tightens e-cards between May and July with a daily threshold of MOP 300 (US\$37.50).

FACES LEADING THE FIGHT

Health Bureau (SSM) Control of Communicable Diseases and Surveillance of Diseases Department co-ordinator Dr Leong lek Hou

When it comes to providing regular updates on medical examination measures, as well as quarantine measures, Dr Leong lek Hou has been crucial to the government's entire efforts over past weeks. She has announced restrictions on arrivals imposed on tourists coming from high-prevalence COVID-19 regions. On 25 February, she urged residents to avoid travelling to these places. On 9 March, she announced that local residents can choose to

Leong said the epidemic situation in Macao has eased thanks to residents' perseverance in keeping up with all the necessary protective

go into a 14-day guarantine, while

visitors and non-resident workers

government-designated hotel.

would need to be quarantined at a

measures, saying on 10 March that it relied on the 'diligence of the public'. In a previous press conference, the day before, she said the government couldn't say that Macao is already

facing 'zero risk' concerning
the novel coronavirus as
it is now spreading
across the world. And
she was right, given
the new cases as we
went to press.
Leong has urged
residents to continue

measures, such as avoiding gatherings, wearing facemasks when out and about and washing hands frequently. On 10 March, she also stressed the importance of honesty in disclosing personal travel history. On that day it was revealed that a tourist had lied about having recently been in South Korea.

with COVID-19 protection

large corporations and prominent associations to individuals. "There's no doubt that this novel coronavirus has affected the daily life of residents but they have been willing to co-operate with the government to prevent the virus outbreak in the community," says Ng Siu Lai, president of the board of directors at the General Union of Neighbourhood Associations of Macao, also known as 'Kai Fong' in Cantonese. "Although the atmosphere has been tense," she says, "the community has remained in an orderly manner as residents are confident towards the government."

In a bid to alleviate public anxiety about the mask supply and shortening the public time for queuing, Ng's group and two other community associations – the Macao Federation of Trade Unions and the Women's General Association of Macao – have assisted the government in selling masks for residents and non-local workers.

For Nick Lei Leong Wong, president of Macao United Citizens Association, which has a strong link to the local Fujian community, one of the keys to preventing the virus outbreak lies in the hygiene of residential buildings. He says: "We have formed an alliance - comprising more than 200 residential blocks - to enhance the basic knowledge of residents, property management committees and companies [of the buildings] towards the hygiene of public areas. The alliance has achieved quite a lot - for instance, some residents did not wear facemasks at the onset of this virus spread but they have gradually got used to the habit."

The city's largest labour group, the Macao Federation of Trade Unions, has kept its eyes on whether the rights of employees have been compromised among others during this period. "Together with our affiliates and service centres, we have talked with our members to know more about their needs in light of the fight against the virus," says Ella Lei Cheng I, legislator and vice-president of the group. "We have helped some workers to discuss their working arrangements with their employers, which might have been affected economically by the novel coronavirus." She adds that numerous individuals and companies have

contacted the group for donations in terms of protective supplies as well.

All the six gaming operators have also pledged donations of between MOP 20 and 25 million (US\$2.5 and 3.1 million) each in early February to assist with the relief efforts in Mainland China and Macao, as well as providing other supplies and support. And the territory's lenders have also helped improve the city's business scene. The Bank of China's Macao Branch launched in February various financial and loan products with a total amount of no less than MOP 5 billion (US\$625 million) for local SMEs and individuals, including MOP 3 million (US\$375,000) loans for small companies to stay afloat. The Industrial and Commercial Bank of China (Macau) Ltd also pledged in the same month loan products of at least MOP 5 billion (US\$625 million) for SMEs and MOP 15 billion (US\$1.87 billion) loans for contracts and engineering firms to accelerate local infrastructure works to spike the economy.

On the subject of banks, it was reported that Macao-based Portuguese bank BNU donated MOP 100,000 (US\$12,500) to the Holy House of Mercy of Macau (SCMM), which has been supporting the community since 1569, on 21 February to help the fraternity support the government's measures against the epidemic. BNU, which is owned by Portugal's state-owned savings bank CGD, also donated MOP 100,000 (US\$12,500) to Catholic social service organisation Caritas Macau a couple of days before and it opened an account to raise funds for the charitable organisation's activities in support of the government's measures around the same time. On 18 March, BNU donated MOP 100,000 (US\$12,500) to The Women's General Association of Macao, which has been

FACES LEADING THE FIGHT

Conde São Januário Hospital's clinical director Dr Lei Wai Seng



Dr Lei Wai Seng spoke at daily press conferences updating the public on the health conditions of the latest COVID-19 patients. A consultant pneumologist at the public hospital, Dr Lei also reported that none of the medical staff, Macao Government Tourism Office officials and Air Macau crew members showed signs of the new coronavirus after the successful evacuation of Macao residents in Hubei.



On behalf of the government, Secretary for Economy and Finance Lei Wai Nong receives 4,000 litres of disinfectant alcohol donated from the Nam Kwong Group

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Spe

FACES LEADING THE FIGHT

Director of Macao Government Tourism Office (MGTO) Maria Helena de Senna Fernandes



Helena Senna Fernandes shared on 26 February how tourism has been affected 'very much' by COVID-19, sharing that she 'has never seen such bad performance figures' since she started at the tourism office in 2012. Once the virus seems to be waning, however, she has shared that her office is to draft plans to boost the local tourism sector's recovery, which will be rolled out in phases.

Senna Fernandes and Dr Lei Chin Ion, on 20 February, inspected entertainment venues a week prior to them re-opening. On 7 March, she was present at the command centre at Macao's International Airport when a chartered Air Macau flight was scheduled to bring home evacuees from Hubei. She thanked those who took part in the unified effort.

extremely active in supporting people during the epidemic.

Making a contribution to the community does not always mean making hefty donations, though. Remaining steadfast in your duties



Clockwise from top: Citizens queue up to buy facemasks at a Macao pharmacy; entry to public spaces is only granted once temperature checks have been made; kind-hearted locals have been delivering groceries to the elderly





and roles also plays a major role in this critical moment. Natalie Wong is a nurse at a daytime elderly care centre run by Kai Fong, who regularly visits the households of senior citizens and helps them clean their wounds and get injections - including at the times of the virus outbreak. "We have all the protective supplies we need," she says, "including facemasks, hand sanitisers, protective clothings and so forth, so that we can rest assured when doing our job. When we are in the household of the users, we make sure the indoor environment is well ventilated and we wash our hands before and after helping them. I'm just doing my job and trying to help anyone in need in my own capacity."

"I was a little worried in the

beginning because I have to stay around the hospital," remarks Chou Ya Fan, a local driver working under Kai Fong to provide transportation service for the elderly and people in need between their homes and public hospital. His service has remained business as usual throughout this public health emergency. "When I think of those users – who have troubles visiting the hospital as they don't have a car and the public transportation service is limited – I feel like this is a way for me to make contributions to the community."

Fast recovery

The COVID-19 outbreak has and still is wreaking havoc around the world. It might still take weeks and



months for the global community to work through the implications of this pandemic when many countries in the West are now rushing to shut down cities to keep a tight rein on the situation.

On the other side of the world,
Macao is getting back in shape bit by
bit - the city has to continue keeping
close watch over the surging cases
beyond China while the society as a
whole has to dip deeper into its bags
of tricks to get the local economy
roaring again. And of course, with
new cases announced in Macao over
the past few days before we went to
print, there is still some way to go
before it can truly be said that life in
the territory is 'back to normal'.

"We have," says Desmond Chee Shiong Lam, a professor in integrated ▶

FACES LEADING THE FIGHT

Head of the Macao Government Tourism Office's (MGTO)
Licensing and Inspection Department Inês Chan Lou

Inês Chan Lou supervises tourismrelated laws, regulations and
licensing. She has shared
information on the
movement of tourists
in and out of Macao
and on hotels and
guesthouses closing
over past weeks. She
has also shared the
number of quarantined
patients with the public
and she helped to co-ordinate
the mission to evacuate Macao

residents from Hubei on 7 March. She said during 14 February's

daily press conference
that authorities would
provide psychological
counselling and
supplies to Macao
residents stuck in
Hubei. On 5 March,
she disclosed that
those Macao residents
had asked for the Macao
government's help prior to the

evacuee airlift.

FACES LEADING THE FIGHT

Head of the Public Relations
Division of the Public Security
Police (PSP) Lei Tak Fai and
head of the PSP's Operations
and Communications Division
Ma Chio Hong



The PSP spokesmen have regularly been taking turns attending the daily press conferences held at the Health Bureau, announcing the movements and measures at the border and the inspections of tourist documents.

On 10 February, Ma Chio Hong (pictured right) shared that the police had recorded 1.74 million entries and exits at the border between 27 January and 1 February, a 76 per cent drop compared to last year's figures during the same period. On 22 February, Lei Tak Fei (pictured left) shared that Macao had 16,000 entries, compared to last year's figures of 100,000 travellers daily entering the SAR.

resort and tourism management at the University of Macau, "conducted ourselves – government, [gaming] operators and residents – well in the midst of the [outbreak] so far. I feel there are more positive lessons than negative. We have learned the need





From top: Not one face is unmasked as people shop for vegetables; food supplies are checked regularly and restocked. Opposite page: the people in Macao have shown remarkable resilience throughout this tough period. Life carries on despite new cases being announced on 15 March

to work together as a community, to sacrifice corporate revenue or personal gain over the greater societal cause. By minimising the damage of the [pandemic], I believe Macao will recover faster than most cities in our region."

As the UM professor indicates, there is no reason to believe that the Macao community won't be 'back to normal' as soon as possible, thanks to the determination and vigilance of the people and to the quick thinking and effective measures taken by the local government, with support from the central government. Many say

the world will be a changed place by the time the epidemic is over and that mankind will have learned some valuable lessons along the way. These people need only look to Macao to see a city that did what it could in the face of adversity and came out closer, stronger and with renewed optimism on the other side. •



Scan this QR code and watch our special video on 'COVID-19: A Look Back at Macao's Empty City'.



Virus feature

A matter of masks

Text Rafelle Marie Allego Photo Cheong Kam Ka

If you aren't wearing a facemask when you're out and about in Macao, you may not be seen as part of the city's unified fight against the spread of infection. We look at how important the mask has become since the outbreak.

It was the symbol of the SARS epidemic in 2003 and it's become a symbol of the coronavirus epidemic that is currently spreading across the globe: the facemask. This simple surgical mask has the simple honour of making the wearer feel safe during a virus outbreak while also feeling that they are not spreading the infection if they happen to have caught it. Since January, the facemask has once again been a symbol of defiance in the face of adversity.

Macao, unlike some places across the world, has not been lacking in facemask stocks, with the government's measures over the past couple of months encouraging people to cover half their faces everywhere they go in a bid to prevent infection. Seeing anyone without a mask on now is jarring – a naked face in a masked sea of humanity simply looks out of place. Despite being a daily safety precaution, the facemask has also become the symbol of a unified fight against the COVID-19 outbreak in Macao.

As Health Bureau director Lei Chin Ion has said over the past few weeks, the 'use of masks limits the spread and possibility' of people 'getting infected by the virus'. He has also said that

facemasks 'will help fight the possible propagation of the virus and protect other people'. To wear a mask is to let the people around you trust you have their best intentions at heart on your daily commute or while you're shopping in the grocery store. It is a guarantee that people are putting their health and your safety first.

The use of masks
limits the spread and
possibility of people
getting infected by the
virus. Facemasks will
help fight the possible
propagation of the
virus and protect
other people.

When the first confirmed COVID-19 case was announced on 22 January, there was initially a mad dash for masks across Macao.

But the government was ready as it had preemptively ordered 20 million of them. By the following evening, they were made available for purchase. And on 24 January, the Novel Coronavirus Response and Co-ordination Centre released a statement that said 'local residents need not panic or rush to pharmacies' if they wanted to buy a mask. The centre also made assurances to the public that Macao's 'mask supply is sufficient' and up to the 'quality assurance standard'. Since then - and up until we went to print - there have been seven distribution rounds, with millions of facemasks being handed out. Taking into consideration the needs of the younger generations, the government also began distributing children's masks starting from the third round on 12 February.

Each purchase round lasted 10 days and there was a fixed price of MOP 8 (US\$1) for 10 masks. Local permanent and temporary residents, as well as non-resident workers informally known as 'blue card holders', have been entitled to a pack each at any one of more than 80 designated outlets, which includes more than 50 pharmacies, eight health centres in Macao and Taipa, two health stations in Coloane



run by the Health Bureau (SSM) and 21 'service points' run by the Macau Federation of Trade Unions, the Macau General Union of Neighbourhood Associations and The Women's General Association of Macau.

Wearing facemasks is now mandatory to enter public administration premises and banks, along with temperature scans and presentation of online health declaration forms. Even on public transportation, some bus drivers can refuse entry to those without one on. As for the entertainment complexes, both workers and gamers are also required to wear facemasks. And recovered COVID-19 patients have also been advised to wear facemasks even at home while also keeping a 1.5-metre distance from their family members. When going out, wearing a mask is definitely, still today, a must.

Aside from the masks provided by the government, private entities have also come forward with their own mask donations totalling more than 2 million. As of 22 March, the government had sold more than 30 million masks from the beginning of the outbreak. The imported masks have mainly come from Mainland China, Japan, South Korea, Europe and Southeast Asia with repeated assurance from the Economic Service Bureau that masks purchased by the government would be enough for everyone and that none have been found to be counterfeit.

Lei Chin Ion has strongly urged Macao residents to keep up all preventive measures – and that includes wearing a facemask when out. The Health Bureau's Control of Communicable Diseases and Surveillance of Diseases Department co-ordinator Leong Iek Hou has also urged that everyone continue with COVID-19 protection measures – one of which is wearing a mask when out and about.

The news cases which were announced in Macao between 16 March and when we went to print on 24 March were immediately followed by government reminders that residents must keep up with all the preventive measures that are in place, including the use of facemasks. As Macao's government has plastered on all its websites and buses: 'Let's all persist; avoid crowd gathering; wash hands frequently; wear a mask properly; declare health conditions: reduce leaving Macao'. The facemask is clearly part of that message and it not only stands for safety. It will remain a symbol of unity and courage for long after the coronavirus has come and gone.



Virus feature

Welcome home

Text Tony Chouin Lai Photos courtesy of the Government Information Bureau

The first batch of Macao residents who were staying in Hubei province since the COVID-19 outbreak has arrived home after weeks of preparation by the Macao government and with the support of the Hubei provincial authorities and the central government.

It technically only took about an hour-and-a-half for an Air Macau charter flight to bring home 57 Macao residents from Hubei province on 7 March – but the preparation, planning and coordination behind this mission took

many weeks. The outbreak of the novel coronavirus disease and the subsequent travel restrictions in place across the central Chinese province meant that getting these residents home took plenty of work from multiple authorities.

Following the lockdown in Wuhan, the capital of Hubei, on 23 January that expanded to other cities in the province within days to contain the virus outbreak, more than 100 Macao residents were stranded in the province, the hard-hit region

that accounts for over 80 per cent of confirmed cases in Mainland China. According to news reports from the local media, some Macao residents were visiting relatives before the travel restrictions were in place in Hubei, while others were living with their family members in the province.

Since the start of the outbreak, Chief Executive Ho Iat Seng has instructed the relevant government departments to give all types of support to the Macao residents in Hubei and formulate a plan to bring them back home, Secretary for Social Affairs and Culture Ao Ieong U remarked in a press conference on 7 March, noting the 'smooth conclusion' of the charter flight. The Tourism Crisis Management Office kept in regular contact with those residents, while the Macao community also gathered and sent any necessary goods and medical supplies for them amid this public health emergency.

This charter flight had 'enormous support' from the central government. as well as the Chinese liaison office in Macao and the relevant public bodies in Hubei province, paving the way for the Macao residents scattered across different places in Hubei to arrive in Wuhan for boarding in a short time period, Ao highlighted. The 57 returnees from 31 families, aged between three months old and 77, had stayed in various cities in Hubei - including Wuhan, Xiaogan, Xiaocheng, Huanggang, Xianning, Suizhou, Xiangyang, Enshi, Yichang, Huangshi and Shiyan - some of which are several hours of drive away from the Hubei capital.

Not enhancing the risks of crossinfection for the returnees during their trip home was the major consideration behind this mission. This included the excursion from their residences in Hubei to the airport in Wuhan and the flight to Macao, explained Lei Chin Ion, the director of the Health Bureau (SSM), during a press conference on 25 February. The administration also had to consider the wellbeing of crew members and government workers on the flight, as well as the handling capacity of the local medical system, he added. "We are working on a wide range of possible plans but it could only be implemented under the right circumstances," Lei added at the time.

This flight had enormous support from the central government.

As the virus spread across the Mainland has started to slow since mid-February, it was proven to be the right timing on 7 March. The Macao government assigned a 15-strong team to help the first batch of Macao residents in Hubei back home – mostly those living in Wuhan or in close proximity to the city. The working team comprised seven crew members from Air Macau, as well as doctors, nurses and officials from SSM and MGTO.

The charter jet arrived at the airport in Wuhan around 11am on 7 March. Received and assisted by officials from the Hubei provincial authorities, the Macao team carried out health checks on the returnees at the airport, ensuring they had no symptoms of fever or respiratory infections and had not been in close contact with any COVID-19 patients. This was followed by another round of security and temperature checks by local customs. Carrying 57 returnees and 15 working team members, the charter flight departed from Wuhan around 5pm on the same day and landed in Macao about an hour-and-a-half later.

The returnees were taken to the public health centre in Coloane where they completed their 14day quarantine before undergoing further medical surveillance at their homes for another two weeks. The crew members of the charter jet and the MGTO officials also underwent quarantine for two weeks in a hotel. The exception was the six doctors and nurses from SSM, given their long-term medical training and full protective gear. According to both SSM and MGTO, there were seven chronic patients among the 57 residents arriving home from Hubei but all have



remained in healthy conditions with negative results after three rounds of COVID-19 testings. For the remaining Macao residents in Hubei, the Macao government has not confirmed when there will be a second charter flight. Figures from MGTO show there are now more than 100 Macao residents and their family relatives in the central Chinese province.

Inês Chan Lou, who heads the Licensing and Inspection Department of MGTO, commented in a press conference on 12 March that the authorities have to mull over a basket of factors before a second charter flight can be confirmed. These factors include the health conditions of the first batch of returnees, the magnitude of the virus spread in Wuhan and nearby cities and the carrying capacity of the quarantine facilities in Macao.

Nonetheless, those who remain in the Chinese province have been left in the good hands of the local authorities and the central government, making no difference to their experience since the virus outbreak weeks ago. "[These Macao residents in Hubei] are staying in their motherland," Chan told the press in February about their living conditions. "Our country has taken great care of them."





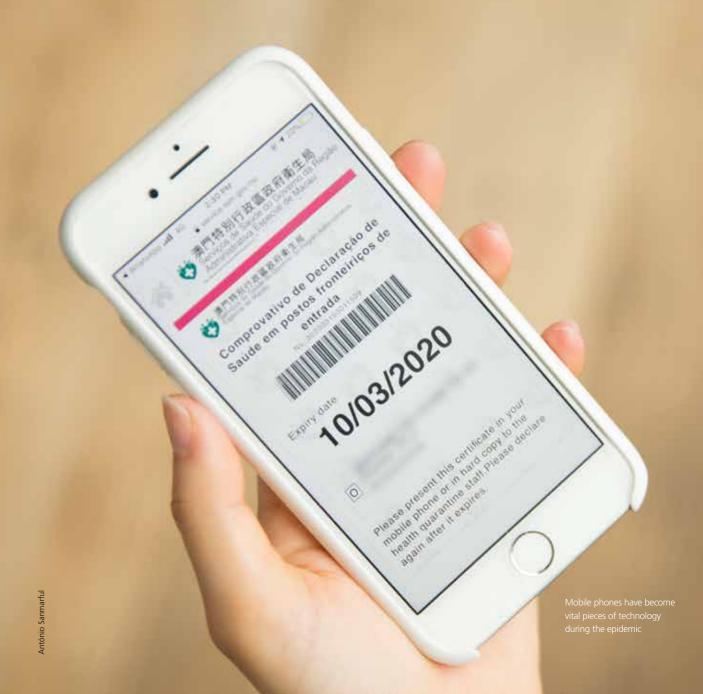


Virus feature

The power of technology

Text Mariana César de Sá

We look at the increasingly important role that technology has played in the city since the outbreak of COVID-19.



Since the beginning of the coronavirus outbreak, many measures have been enacted by the government to prevent the spread of the virus in Macao. However, these measures can't be executed without communicating them on a grand scale and that's where technology comes in. The important role played by technology in how the government and residents have dealt with the virus and its impacts has not really been assessed in the media. But here we explain how it has aided our city in a time of crisis.

To begin with, the use of Facebook and other social networks or digital platforms to publicise the government's measures to combat the virus and help the population has been enormous. It has also been helpful at preventing speculation from any rumours that may have arisen over time. The Government Information Bureau (GCS) has permanently covered, often live, the announcement of its measures through Facebook, YouTube, WeChat Instagram and Telegram Messenger, which was launched last month. In fact, GCS's Facebook page has been the most viewed official social media platform to follow what has been happening on a daily basis in Macao. From 22 January to 18 March, more than 1,850 posts were shared on their Facebook page, making an average of 32 posts a day. The posts included text, infographics and video clips.

On 22 January, just when the fight against COVID-19 started in Macao and the Novel Coronavirus Response and Co-ordination Centre was created, a bilingual information website was launched which has since covered news and the measures being taken to fight the epidemic. Over the weeks, the centre's website has been vital in informing the public of how to live their lives in a way that will prevent the spread of the virus across the city.

With the closure of schools and

universities in recent weeks and with the support of the government, online distance learning platforms have been created and launched for students so they can work from home, thus avoiding travel to educational institutions. Louis Lou, an IT teacher at Pui Ching Middle School, says: "Before, online teaching was mainly used as an assessment tool but during this time, it has become the primary medium for learning. This experience has allowed students, teachers and parents to improve their IT literacy but, on the other hand, the lack of face-to-face communication makes it hard for us to know whether students are actually following the schedule. I think a holistic learning experience calls for face-to-face interaction between teachers and students." For the city's 10 tertiary education institutions, however, the government announced on 19 March that classes would gradually resume on-campus from 1 April.

The fight against COVID-19 in Macao has made the territory discover its full technological potential in the face of adversity.

Banks have also responded immediately to the situation by messaging their customers and asking them to use online services, preventing the need to leave their homes. The Bank of China and Banco Nacional Ultramarino have both used technology effectively to keep their customers in the know.

Technology in the form of a smartcard is also at the heart of the

government's scheme to give out MOP 3,000 to each Macao resident to help them overcome any difficulties they experienced as a result of the virus outbreak. The money will be loaded on to the Macau Pass smartcard in the form of 'vouchers' so they can be redeemed by the cardholder. The MOP 2.2 billion (US\$274.9 million) scheme, which will roll out on 14 April, can be used for 'catering, retail or groceries' but 'only in Macao'.

Local company Macau Pass, the all-in-one mobile payment solution firm behind the contactless smartcard, which itself was introduced in 1999 and can be used to pay for anything from bus journeys to dining, is supporting this scheme by leveraging its network in Macao to distribute the funds. Company director Joe Liu says: "Macau Pass pledges to fully support this government scheme by paying for all the associated costs, from printing to software development, and all transaction fees collected during this period will be redistributed out as different forms of incentives to further stimulate local spendings."

And, in an unprecedented measure, the government, in the first phase of the battle against the epidemic, sent home 30,000 civil servants and allowed them to work from home through the government's online system. Also, as public services have been resumed, the importance of online technology has become evident because it has become necessary for all citizens to fill in a health declaration if they want to enter any government institution or building. These declarations are submitted through a newly created page which can be accessed via a QR code. The whole process takes less than a minute and is extremely convenient both within Macao and for those who are entering Macao. In our neighbouring SAR, tourists hover over tables outside immigration buildings to fill in paper health declaration forms when trying to enter the city.

Offline to online

News outlets have also been crucial over this time to keep people informed on a daily basis via their websites, social media platforms and apps. Be it breaking news of new cases or telling people how and where they can take sanitary care, the news outlets combined with the government's regular updates have meant that residents are always in the know. Even restaurants have responded by delivering food doorto-door after phone or online orders rather than waiting for people to come in. And when it comes to the city's 35,000 Catholics, the churches have also remained closed but have been

broadcasting their masses regularly on their website until 6 March.

On 21 January, one day before the first COVID-19 case was discovered in Macao, the most downloaded app on Macao's Apple Store was MPay (under Macau Pass). On 5 February, the first day the government's civil servants stayed home, the number one most downloaded app was Zoom Cloud Meetings and it has remained at number one since then. This perfectly describes how our society has taken to a new work life and how online consumer behaviour has drastically changed over past weeks.

During the first phase of the outbreak between late January and mid-February, CTM (the local telecommunications company) reported a 30 per cent spike in network usage. The company also installed free Wi-Fi hotspots at all

border checkpoints, enabling inbound residents and tourists to complete their online health declaration forms. It also provided mobile handsets in local hospitals to facilitate communication between patients and families through video calls.

The fight against COVID-19 in Macao has made the territory discover its full technological potential in the face of adversity. Technology, particularly the internet, has been crucial to make sure the population in the city are kept as safe as possible and are informed since the beginning of the outbreak. Macao has been in the digital age for years but in January 2020, the city reached a new level in how it uses technology to inform and cope in a crisis. With this, work lives and habits have forever changed and many new opportunities have emerged.



Virus feature

The race for detection

Text Matt Fleming Photos courtesy of Digifluidic

A Hengqin company on the border of Macao is working quickly on a test kit that would detect COVID-19 in just 30 minutes. The race is on.

As the world knows by now, detecting COVID-19 is not an easy task. It can take days for the virus to show itself. But companies across the globe are working hard to create products which would detect the virus more efficiently and, perhaps, save lives in the long run. One such company on Macao's border is working as fast as it can to develop a kit that does exactly that – and the fruits of their labour could be ready by next month.

Health tech company Digifluidic Biotechnology Ltd has been jointly developing the COVID-19 rapid test kit with help from the University of Macau, which holds some shares in the business, over the past few months. The firm has been involved in developing a digital-microfluidic chip-based system known as 'Virus Hunter', which was developed to detect all types of viruses but is now being fine-tuned to detect COVID-19. This kit, according to the company, would be able to detect COVID-19 in just 30 minutes.

Digifluidic founder Dr Chen Tianlan has confirmed that the company is in

'Virus Hunter' with a sample biological chip like the rapid test kit

the final development and testing phase for detecting COVID-19 and that it plans to go to Zhuhai's Centre for Disease Control for further testing soon. If those tests are a success then the kits –which are a combination of the 'Virus Hunter' system and the detection chips that are 'read' by the 'Virus Hunter' before it delivers a result – could in theory be ready for use by next month. But that's quite a verification process still to go and it may take longer, so Dr Chen prefers to tell us that it will be available in 'the near future'.

"The chip part of the kit," says Dr
Chen, "has been applied in the field of
aquatic disease detection and has been
put into use. Now we are making efforts
to develop this chip part of the kit for
the novel coronavirus with the clinical
trial being carried out in the near
future. Once the clinical trial is passed,
it can be used. In Mainland China, the
medical device can only be used in
hospitals after obtaining a certificate,
so it will take about two years for our

products to enter the hospitals there." Dr Chen adds that the company does not need a certificate to test in Zhuhai. He confirms that the first batch of test chips have been produced and are ready to evaluate now.

Dr Chen, whose English name is Oscar, is a postdoctoral fellow of the



University of Macau who participated in many bioengineering projects during his studies in Macao and has many years of experience in the development of digital microfluidic control systems and digital microfluidic chips, as well as in the development of rapid DNA detection methods based on microchips. He launched, alongside a team, Digifluidic Biotechnology in 2018. The team began as researchers at the University of Macau's State Key Laboratory of Analogue and Mixedsignal VLSI (AMS-VLSI) and, since then, the company has become a hightech enterprise that focuses on the research, development, production and marketing of clinical and agricultural disease diagnostics devices like the rapid test kit.

Digifluidic, whose project came first in last year's One Million Dollar Macao Regional Entrepreneurship Competition sponsored by the University of Macau and the Bank of China, has said that preliminary research and development for the kit has taken almost a decade, including research that has been conducted at the University of Macau. The 'Virus Hunter' is a portable automation device and platform for DNA detection that can generate detection reports in real time by connecting with a computer and co-operating with detection panels. As it's simple to use, specialised personnel are not needed and testing reports can be obtained within 30 to 50 minutes, with up to 12 tests being done at the same time.

The test kit which uses the 'Virus Hunter' includes a nasopharyngeal swab and detection chips containing reagent – a substance which effectively tests if a reaction occurs and can confirm whether the virus is active – and could be used by frontline personnel to conduct onsite rapid tests on suspected carriers. Not only will it detect the virus quicker for the health of the patient but it should then help to streamline the entire detection process.



Dr Chen - who says that 10 people at Digifluidic are working on the kit but that the estimated total research and development cost would be 'hard to estimate' - says that the product would be used 'anywhere as long as there is a market'. "We tend to start with the Mainland and Macao markets," he says, "and then we will go overseas to contribute to epidemic prevention and control. Detection of the virus as soon as possible can help hospitals to quickly carry out preliminary diagnoses of suspected cases, shortening the whole diagnosis and treatment cycle and blocking further infection. This is very important for the safety of patients."

Over the past few weeks, the University of Macau suspended classes and urged students not to return to the campus. "If this happened again," says Dr Chen, "this kit and other virus-related research would be able to help control the epidemic quickly and restore the normal operation of society as soon as possible, like students returning to university quickly." Dr Chen adds that Digifluidic's offices and lab are based over the border in Hengqin. "When we have encountered problems over the past few weeks," he says, "we have consulted the professors of the University of Macau online and they have been giving us suggestions and solutions quickly.'

"Once the kit is available," continues Dr Chen, "the initial diagnosis time of suspected cases will be greatly shortened, which can help the confirmed patients to enter the next treatment step more quickly on the macro level." Dr Chen says that current tests for coronavirus 'usually take more than one hour' while 'our new kit can generate reports in as fast as 30 minutes'. He says that the current tests have been around 'in recent years as the mainstream' but the new kit remains just as accurate at more than 95 per cent chance of getting the correct result. He concludes: "As professionals in the field of virus testing, we feel that it is our responsibility to develop this kit as soon as possible to benefit the common people - meaning everyone in society and we will do our best to contribute to the maintenance of public health."

SPEEDING UP

A research team in Macao is also making diagnoses faster

Digifluidic's rapid test kit, when ready, will make diagnosing someone with COVID-19 guicker and easier. However, a research team led by Zhang Kang, a professor at the Macau University of Science and Technology (MUST), is also speeding up the diagnosis process. The team has developed a smart system - the Artificial Intelligence System for Screening, Diagnosis and **Prediction of Novel Coronavirus** Pneumonia - that uses chest CT and x-rays to complete a diagnosis in 20 seconds. The system can help medical professionals carry out evaluations on the effectiveness of certain medicines used to treat the symptoms of COVID-19. Anyone in China can use it now but soon, it has been reported, it will be available internationally.

THE WORD ON THE STREET

Interviews Rafelle Marie Allego and Cathy Lai

We asked residents about their experiences during the COVID-19 epidemic in Macao. This is what you told us...



WILLIAM CHAO
Age: 35
Profession: Associate professor

"The measures taken by the Macao government were effective. They significantly lowered the risks of community transmission and reduced public anxiety."



LAM FONG CHAN
Age: 65
Profession: Housewife

"I've been happy to see that at each entrance of many public facilities, there are people from the government checking visitors' temperatures. This reminds people to stay alert."



GILBERTO CAMACHO
Age: 41
Profession: IT engineer

"I really appreciate that the new Chief Executive had the courage to take difficult decisions quickly, such as closing entertainment complexes for two weeks. Between the health of the people and the economy, he chose the first one."



NAIR CARDOSO
Age: 41
Profession: Kindergarten teacher

"With schools cancelled, we have kept a positive and close 'virtual' relationship with students to minimise the impact on them.

Our government has shown efficiency, clarity and transparency. I am proud of the measurements implemented."



ARI CALANGI Age: 29 Profession: Musician

"As a freelance musician, my income mainly comes from doing shows in China but with many of them cancelled, I've kept myself busy writing and arranging music. I hope, after the outbreak is gone, we'll all still keep a clean and healthy environment."



CAPRICORN LEONG
Age: '30s'
Profession: Online eco-friendly shop founder

"I have received messages from my customers asking about organic cleaning products and even facemasks. The sales of meal boxes have increased a bit as more people have opted for buying takeaway food instead of eating in restaurants."



JOE CHAN
Age: 41
Profession: Biologist and teacher

"In the school that I work at, the teachers created online lessons with PowerPoint and videos. The students then downloaded them from the school's e-learning system so they could continue to learn at home at any time."



RAIN CHAN WENG LOI Age: 28 Profession: Musician

"Everyone is solidly united thanks to the government committing to their role in safeguarding our wellbeing. I hope things return to normal quickly but, in the meantime, I have had music to arrange so it's been a good learning period!"



EMILY JENNA SMITH
Age: 26
Profession: Vegetarian takeaway general
manager

"Since the first case, the government's promptness has been an absolute blessing. Everyone in Macao was given masks and their health was ensured, even going so far as closing down all the entertainment resorts."



LUCIANO CONÇEICAO GONÇALVES

Age: 36

Profession: JCI 2020 national president

"Under the strong leadership and the amazing effort by our government throughout this epidemic, we are confident that Macao will soon recover. We will continue to support and contribute to our beloved community."



The challenges faced by Macao in **1** terms of its economic recovery in the wake of the virus outbreak are well documented. Over a number of weeks, the city lost a lot of income. But it's not all doom and gloom. Tai Kin Ip, Macao Economic Bureau director, says that the government has carried out a raft of measures to help businesses and residents out over the weeks and months, and the authority is also fielding questions regularly and monitoring retailers. He also says the government is confident that economic recovery will be rapid when we speak to him.

It's been a tough couple of months and there may be tough times still to come, economically speaking. In short, how has Macao been affected?

The novel coronavirus has gone rampant and been spreading around the world since its outbreak. As a small and open economy of which the GDP is heavily based on the services sector, Macao has inevitably been impacted. Understanding the dire straits of all the walks of life in Macao, among which the small and medium-sized enterprises (SMEs) sector has been one of the hardest hit, the Macao SAR government has responded swiftly by announcing a raft of measures to tackle the current situation.

What are these measures for SMEs?

To alleviate the economic difficulties of SMEs, the government has rolled out policies including tax exemption, which includes profits tax, property tax and tourism taxes, as well as the temporary waiving of payment for the rental of government properties, interest-free financing to SMEs and consumption stimulation schemes. In addition, the government is also providing subsidies to SMEs' electricity and water payments, with a maximum subsidy of MOP 3,000 for water bills per month and MOP 10,000 for electricity bills per

month for each SME. Both subsidies will be valid for three months. The relevant subsidies will be deducted from the March to May electricity payments of SMEs while subsidies for water payments will be reflected on the bills for May and June, as well as July and August.

What about corporate loans?

Another short-term measure that is available for application is the 'SME Corporate Loan Subsidy Scheme', which allows enterprises to apply for a four per cent subsidy for their loans not exceeding MOP 2 million in principal and with a repayment period of up to three years. Enterprises that have applied for the 'SME Credit Guarantee Scheme' for a certain loan can also apply for this short-term subsidy programme for the same loan.

The government is confident that our city will be among the economies that are

economies that are able to rapidly recover after this virus outbreak.

Can you explain the MOP 3,000 vouchers scheme?

As businesses cannot get back to usual without customers, the government are also distributing consumption vouchers to all permanent and non-permanent Macao residents, adults and minors alike, to stimulate consumer sentiment. The vouchers, each with a nominal value of MOP 3,000, are distributed in electronic form. Daily spending is, however, limited to MOP 300 and

encashment is strictly prohibited.
Through the consumption vouchers,
the government expects to inject MOP
2.2 billion into the local economy,
which will be of benefit to both
residents and businesses.

How is the Economic Bureau (DSE) ensuring the stable supply of disinfection products and foodstuff to residents at the moment?

The DSE is staying in close contact with wholesalers to keep track of their stocks and orders so as to ensure the supply of rice, cooking oil, flour, milk powder and bottled water. In addition, the DSE conducted more than 4,000 inspections on supermarkets and drugstores between 22 January and 1 March to ensure they have a stable supply and to check the price of facemasks, disinfection products and foodstuff. No instances of price gouging or hoarding were found during these inspections.

How have you handled enquiries from Macao residents?

The DSE set up a hotline for enquiries and complaints between 24 January and 9 February and it has taken any follow-up actions. In addition, the Macao government's Emergency Response Co-ordination Centre was set up on 21 January. On 27 January, the centre launched a 24-hour hotline for enquiries and suggestions from residents. As one of the members of the centre, the DSE also has staff members there to answer any related questions.

Are you confident that Macao's economic recovery will be swift?

The government will continue to pay close attention to the needs of residents and the local business community and spare no effort in stabilising the economy and ensuring employment. At the same time, the government is also confident that our city will be among the economies that are able to rapidly recover after this global outbreak of coronavirus. •



Tt isn't just the government, medical Lervices and businesses who have been at the heart of the fight against the spread of the coronavirus. Associations and organisations across Macao have chipped in where they can to support people and the authorities over the past few weeks. One such organisation is The Women's General Association of Macao. The group, formed in 1950, promotes unity and maintains close contact with women in Macao, as well as running social services, nurseries and centres that deal with all sorts of issues like the education and training of women and psychotherapy services. President Lam Un Mui says it's been a busy time supporting residents and the government during the outbreak.

How well has the government coped in dealing with the coronavirus?

Preventing the spread of COVID-19 has been the first challenge the new government has encountered since it took office at the end of last year. Under the leadership of Chief Executive Ho Iat Seng, the epidemic prevention work has been decisive, fast, efficient and far-sighted.

How has The Women's General Association of Macau helped the government in its work?

The third round of the sale of facemasks to local residents and non-resident workers started on 12 February. Since then - and in addition to health centres and designated pharmacies - a total of 21 service spots where masks can be purchased have been created with the help of the Macao Federation of Trade Unions, the General Union of Neighbourhood Associations of Macau and The Women's General Association of Macau. We work with other organisations to assist the government in selling masks at these spots, which can relieve pressure on the authority. These spots help as they are across the city and thus prevent residents from gathering in one place, increasing the risk of infection.

What else has the association been doing to help people?

Since the outbreak of the coronavirus, The Women's General Association of Macau has been actively involved in the prevention and control of the epidemic. In the early days of the epidemic, we launched a series of special arrangements for epidemic prevention and immediately set up an emergency response team to co-operate with the government. We have also held lectures about epidemic prevention and we have been presenting feedback from medical personnel at the front-line to the government, such as from pregnant women and parents, with the hope that the relevant departments will follow up this feedback. In addition, we took the lead in setting up a coronavirus psychological counselling hotline which provides psychological support services and women's medical counselling.

"

We hope to give people peace of mind, use our love to give people strength and use our confidence to help fight the epidemic.

Who listens to callers on this hotline?

The hotline team is composed of doctors, psychotherapists, social workers and other relevant professionals. The team listens and answers citizens' problems and provides appropriate counselling or assistance. If anyone needs to use the hotline they can call +853 2822 6099 or +853 2833 0883 for assistance from the association's Psychotherapy Centre. Since the outbreak, we have also

suspended public services at our centres and in our eight nurseries, with all activities and courses being postponed. At the same time, we are distributing children's masks that have been donated by well-wishers to parents.

It sounds like the association has been working hard to support the government and people since the outbreak began...

While the front-line is fighting, we are supporting from behind. As of 14 February, nearly 11,000 people, including the elderly, the disadvantaged and parents, have been sent messages from us so they can help spread the epidemic prevention information.

Have you raised any money?

We have raised money to help people in Hubei province. Since 10 February we have sent more than MOP 750,000 (US\$94,000) to Hubei. We hope to give people peace of mind, use our love to give people strength and use our confidence to help fight the epidemic!

Can Macao swiftly get 'back to normal'?

No lives can be smooth as no flowers can bloom forever. Treasure the good times and unite when we encounter difficulties. The outbreak was a great blow to Macao but many successful measures have been made and the public has supported them well. If the epidemic was over in Macao now, then I think that all sectors of the society should now work harder to keep our spirits high so the city can return to normal as soon as possible. Right now, Macao needs to face the challenges brought about by the epidemic, including negative economic growth. Therefore, it is necessary for all citizens to work together in order to overcome any difficulties and to once again build a beautiful home here in Macao.



The virus outbreak has, for many, shown just how much Macao has become integrated into the Greater Bay Area - and how much it has missed visitors from the GBA over the past couple of months. Macao lawyer Carlos Simões, who is president of the Macau European Chamber of Commerce (MECC) and co-founder of DSL Lawyers in the city, is an expert on the GBA and he believes this period in Macao's history will eventually 'reinforce the city's integration in the GBA'.

What are the spin-off effects from this period in Macao?

Obviously, the coronavirus outbreak will have a deep impact on the economy of Macao as the city is heavily dependent on, and attached to, the flow of tourists from China. Not only for the entertainment resorts but for many other companies that run their activities around tourism and tourists, the impact of the outbreak has created a life or death challenge that could be agonising for these businesses.

How has the virus affected the Greater Bay Area as a whole?

The outbreak has clearly outlined how integrated Macao is within the GBA and that the degree of self-sufficiency and local demand of the Macao economy is limited. The crisis made it clear that there is a regional economy - the GBA one. And although there was some sense of exclusion to visitors from the Mainland at the outbreak, it changed quickly when people perceived the deep impact of quarantine measures taken by the Macao government. Without the ferry service to Hong Kong, with the government closed for a month and the entertainment resorts closed for two weeks, the locals quickly realised there were severe

consequences to the exclusion of visitors and tourists. However, in general, one could notice that Macao residents gave all their support to the government measures and felt that these measures were taken for their protection and the welfare of the community.

What will be the effects on the GBA going forward?

Now that businesses have been reopened, everyone is looking across the border to the other cities of the GBA to determine how fast the recovery will be. The tourists from the GBA will be the frontline for Macao's recovery. It will be a slow and painful recovery for many local companies but the recovery process will still reinforce the integration of Macao in the GBA.

This crisis made it clear that there is a regional economy the GBA one.

What are your thoughts on how the Macao government handled it all?

The Macao government did very well with all the quarantine measures that were taken since late January. The closure of public services and, later, the closure of schools and entertainment resorts were drastic measures but taken in a swift and decisive way. While these were well supported and, one must say, very successful measures, the government will now face an uphill climb. All these measures and, specifically, the controls placed at the borders

for entry to Macao have shied consumers away from Macao's economy. This is an economy built for tourism and, without it, it's like a car without an engine.

How has this outbreak changed the mindsets of people in Macao and the GBA?

The outbreak has shown clearly to Macao people how small we are and how dependent we are on neighbouring regions. It has also shown that the environment can change quickly and people need to adapt to that changing environment. It was a learning experience for everyone, requiring humbleness and trust in the community and government. From this perspective, Macao has benefitted greatly.

As a lawyer, what legal issues have been raised in Macao since the outbreak of the virus?

The main legal issues being raised by the virus outbreak relate to (i) whether the outbreak qualifies as a 'force majeure' event and allows for adjustment to any signed agreements and (ii) the duties of both employer and employees in the face of this adverse environment. Our firm has received daily queries on these two points.

And as the president of the Macau European Chamber of Commerce, how has the virus outbreak affected the chamber over past weeks?

The virus outbreak affected the chamber's activities substantially because the MECC is a notfor-profit organisation and its activities depend substantially on the availability of its members. With members staying at home or in the office and avoiding public gatherings, the activities of the MECC were severely affected. It will take a few months to get back to normal. •

Virus Q+A Charity continues at home Text Matt Fleming Photo António Sanmarful Paul Pun Chi-meng, secretarygeneral of Caritas Macau, discusses the importance of helping the government and continuing vital charity work over the past few weeks.

When a city goes into lockdown, it becomes perhaps even more crucial to make sure that all its vulnerable or disabled members continue to be cared for by professionals and charity workers. Caritas Macau knows this well. Since the beginning of the outbreak, the organisation, which is the charity outreach arm of the Catholic Diocese of Macao, has worked hard to make sure all the vulnerable people that it helps continue to get the assistance they need while the organisation also tries to 'relieve some of the pressure for the government' in its work. Secretary-general Paul Pun answers some questions about this difficult period for the city.

What has it been like to be a resident in Macao since the outbreak of the virus?

At the beginning, when there was limited information about the outbreak, people started to panic. They became confused and feared for their safety. As the situation evolved - and in response to the government's call to take precautionary measures - people became more attentive to safety precautions, such as maintaining personal and environmental hygiene, wearing surgical masks and staying away from crowded places. There have been some serious setbacks to Macao's economy, however, which may need some time to recover.

What has Caritas done over these weeks?

To relieve some of the pressure for the government, we in Macao have played our part to ensure that there are adequate resources in our elderly and rehabilitation centres to prevent the spread of the virus – and our service users have been cared for without interruption.

We have also provided temporary accommodation to some of our migrant workers from across the border in order to minimise their travels back and forth from the Mainland. During the critical period of the coronavirus, our social services continued to render assistance and support to vulnerable families and individuals – especially to people with disabilities. This work has been unaffected by the virus situation.

During these weeks, we have explained to our service users and colleagues that this is a time for calm, humanity and unity for all people.

What support has Caritas had in its work?

We have received some provisions, such as food and disinfectant products from enterprises. As such, we have also brought these provisions to at least 400 vulnerable families and individuals. During these weeks, we have explained to our service users and colleagues that this is a time for calm, humanity and unity for all people, including all medical workers helping patients on the front line and those working on preventing the virus.

How have people pulled together since the outbreak?

People have been more willing to work together with the government

to prevent the spread of the virus. We have also noticed that people have become more concerned about the health conditions of their family members, as well as vulnerable people and the community as a whole. It has been a time to reflect on what our society needs and what it will need in the future. We have seen lots of actions taken for the common good of our society.

And how important has the government's support been throughout?

During this period, the government has put the health of the people in Macao as its top priority. It has shown a tremendous will to contain the spread of virus through crossgovernment co-ordination work, timely disclosure of information to the public and implementing policies promptly as deemed necessary. As the situation has gradually evolved, people have noticed the effectiveness of the government's measures, putting them more at ease.

As the virus continues, what do the next few months hold for Caritas?

We in Caritas are taking all possible measures locally and internationally for if the virus continues. We are preparing for the worst and, at the same time, hoping for the best. We shall make use of our international network to source resources to face the challenges. At the same time, we will continue to identify the needs of the people we serve, especially the vulnerable families and individuals and provide them with support and care. We shall also work with the government and provide our recommendations, as applicable. We are confident that we can overcome this difficult period and come out of this virus soon. After every storm, there will be a rainbow!



Macao has not had an easy couple of months. With the outbreak of the coronavirus in January, there have been many tough weeks for residents, businesses and the government. However, as the city strides forward in the face of adversity over the coming weeks, Macao Magazine would like to take a couple of pages to focus on a cute snippet of good news. Especially if you're a fan of monkeys.

On Valentine's Day of all days
– 14 February – the city welcomed
its newest furry resident at Seac
Pai Van Park in Coloane, which is
famous for its pandas, peacocks and
many other creatures that are on
show to the public. According to the
Government Information Bureau, the
new addition is the first infant of a
pair of seven-year-old golden snub-

nosed monkeys called 'San Hei' (三黑) – which means 'Three Black' in English – and 'Eleven' (十一).

The Municipal Affairs Bureau has since been monitoring the primate family's health from a distance so as to avoid any disturbances as the proud mum nurses her firstborn. It has been reported that both are in a stable condition and, as a result, on 14 March, the baby - who is yet to be officially named - was shown to the public for the first time at the park, exactly one month after he was born. This was three weeks after the park resumed operation on 20 February after being closed as a response to the government's COVID-19 measures.

Macao Magazine sent a member of staff to the zoo a few days after the baby was shown to the public for the first time to see the new monkey and we can safely report that mother and baby were inseparable during our visit. Of course, mum wouldn't let anyone too close to her son – who we hear is already learning to climb trees – so the adorable baby clung to his mother's neck and was cuddled by her at all times.

The mother and father golden snub-nosed monkeys have been living at Seac Pai Van Park since 25 October 2017. They are on loan from the Municipal Services Department of the Qingdao Wildlife Rescue Centre in the port city of Qinhuangdao in Hebei province. After the new infant reaches 24 months old, he will be returned to the Qingdao centre. But until then he will likely be a popular attraction for Macao residents and tourists to see with his parents at Seac Pai Van Park.

THE SNUB-NOSED FACTS

Know your golden snub-nosed monkeys

- The golden snub-nosed monkey is a unique species in China, a national first-class protected rare and endangered species.
- Covered in golden fur with a pale blue face and iconic crooked nose, these monkeys mostly inhabit dense alpine forests.
- The Chinese name for the monkey translates to the 'Sichuan golden hair monkey' (四川金絲猴). It is also known as the 'Sichuan snub-nosed monkey'.
- There are three species of snub-nosed monkeys in China but the golden variety is the most widely distributed throughout the Middle Kingdom.
- These monkeys can withstand colder average temperatures than any other non-human primates. They are used to frequent snows in their habitat.
- Their diet varies with the seasons but they are primarily herbivores with a penchant for tasty lichens.
- They spend up to 97 per cent of their time up in the trees.
- On average, a male weighs about 19.9kg but a female is just 12.2kg.
- They are thought to live about 20 to 25 years. In captivity, they have been known to live for more than 23 years.
- The golden snub-nosed monkey population is between 8,000 and 15,000 and they are labelled endangered as they are threatened by habitat loss in the wild.



Start me up

Text Paulo Figueiredo Photos António Sanmarful

Over the past five years, the Macao Young Entrepreneur Incubation Centre has delivered a major shot in the arm to the city's burgeoning start-up scene. We peek behind the curtains and find out why this incubator has quickly become a success story.

Macao isn't really known for its start-up business community... yet. Its local economy, over the past 20 years at least, has often relied upon the gaming, travel and hospitality industries to bring about the incredible financial success it has enjoyed. However, no country or region can rely on one or two industries forever, so effort is being put in across the territory to grow and improve other industries – and one of these is the industry that covers new and exciting enterprises. The start-up industry.

There are a number of methods that a city can use to bolster its start-up community. One can be help from the government, financial or otherwise. This is certainly evident in Macao as the authority firmly supports the development of the city's start-up ecosystem. Another method is to offer courses and support at higher education institutions. Again, the evidence is there in Macao as its universities and other places of higher learning do indeed offer a range of business courses for bright young entrepreneurs. Regular networking events also help, as do mentoring programmes - both also

available in Macao. However, one of the most innovative methods is to use 'incubators' – and it's this entrepreneurial area that's beginning to attract much praise as it nurtures a new breed of start-up.

Business exchange schemes organised by the MYEIC reflect our role as a bridge between China and Portuguese-speaking countries.

Incubators – which can include co-working spaces and business accelerators – have a simple mission: to help entrepreneurs define and build their initial products, as well as helping them to identify promising customer segments and to secure resources like capital and employees. There are generally plenty of networking opportunities at an incubator as well as, of course, working space and legal services to tap into.

They have been running in Macao for the past few years, with the majority directly funded by the government and the minority privately held. The Macau New Technologies Incubator Centre – or Manetic – based in The Macau Square was the first major incubator in the city, opening in 2001. It was co-founded by the Macao government as well as a number of local enterprises. Six years ago, another pioneer incubator was added to the list: the Macau Design Centre, which is dedicated to supporting startup businesses in the creative industry.

With the aim of creating an international innovation and entrepreneurship incubation platform rooted in Macao, a new incubator and accelerator concept was launched in 2015 by the government. Two years later, the Macao Young Entrepreneur Incubation Centre (MYEIC) moved to its current site at the Zona Nova de Aterros do Porto Exterior. The MYEIC opened to great fanfare and ever since it has been an important hub in the nurturing of the city's innovative new start-ups. Supported by the Macao





Economic Bureau, the membership-based centre was placed under the management of Parafuturo de Macau Investment and Development Limited (PFM Macau) by the government in October 2017 and, since day one, it has served more than 120 start-ups, many from the fields of science and technology, as well as a plethora of creative businesses. It's a Macao success story.

The centre that never sleeps

The MYEIC operates around the clock to provide a plethora of support facilities and professional aids for 'innovators and entrepreneurs or those who seek to contribute to Macao'. The 1,300-square-metre facility offers shared office space and includes a lecture hall and 'road show hall', each of which can accommodate up to 60 people. There are all sorts of services available, including consulting and training, and there are also plenty of resources to tap into when entrepreneurs move to the centre.

The MYEIC doesn't just offer business services either. If you ever

feel like an unusual cup of coffee in Macao, head to the centre and treat yourself to a drink from the Diandian Coffee machine, which brews with water captured from air moisture and was developed by a company at the MYEIC. You might also want a snack, which is no problem as there's an ample selection of food in the Mbox vendor machine, which was also developed at MYEIC. It uses an e-pay system you can access through a mobile app.

There are also advantages for businesses who want to expand overseas or into Mainland China at the MYEIC. It is closely connected with Portuguese-speaking countries and has many links with the Mainland too, co-operating with domestic and overseas business incubators to provide facilities and office space, as well as training and exchange opportunities, for young entrepreneurial teams. The members who use the centre are ambitious, entrepreneurial people who are working hard to make their start-up a success. Together they are contributing to the entire scene,

helping to turn Macao into a regional start-up haven.

In a special Macao Magazine feature at the end of last year, the director of the Macao Economic Bureau, Tai Kin Ip, said the MYEIC was launched by the bureau with the Macao Trade and Investment Promotion Institute (IPIM) and the Macau Productivity and Technology Transfer Centre (CPTTM). He said that PFM Macau was created by the Macao government in 2015 with one of its purposes being to support voung entrepreneurs as well as local SMEs - and that it provides 'a wide spectrum of services to innovators and entrepreneurs' in Macao.

Tai Kin Ip proudly said: "It offers co-working spaces, professional consulting, expert advisors, roadshow marketing, investment capital-matching and so forth. The centre also co-operates with domestic and overseas business incubators to enable young entrepreneurial teams in Mainland China, Portugal and Macao to exchange entrepreneurial resources and explore business opportunities."

CASE STUDY: CASPER TECHNOLOGY

One of the MYEIC's members who has made great strides in his business is Kazaf Fong Chon Kit, the 28-year-old behind Macao start-up Casper Technology Limited. He and his team have used deep machine learning and computer vision to develop a high-tech 'smart casino'. Replacing the fallible human eyes of the gaming supervisors, Casper's 'computer vision' uses artificial intelligence to identify gaming chips and count the size of each player's stacks when they are gaming, providing the exact amount that's on the table. With this technology, the gaming operators are able to monitor the amount the chips – and thus the amount of money – on every table in real time. Fong says: "With everything we can judge with our eyes, we can also judge with Al."

"The accuracy [in gaming establishments] is very low today," continues Fong. "The supervisors go around and input an average number [per table]. But we can see the precise number and monitor the operation across all of the tables." Major casino operators in Macao have taken an interest in the project and Fong claims that one of them has offered to assist in the 'smart casino's' development 'in situ'. Fong says that the 'smart casino', when fully operational, will be reliable and stable enough to be shipped to gaming floors from June. He says it needs more fine tuning, plus needs data added to improve its accuracy so it can consider every situation that can possibly happen on a gaming table.

Casper Technology had a great 2019. It received angel funding from private investors in Singapore for research and development. It was also a runner-up in the 'Parafuturo de Macao' Innovation and Entrepreneurship Competition. To top it off in style, it won an Alibaba Create Award in the 'AloT' – Artificial Intelligence of Things – category for the innovative tech concept. Asked if this project will make Fong and his company famous, he isn't shy, answering with a resounding 'yes'.

The path to success, however, has been a long and difficult one for Fong. After attending high school in Macao, he went to university in Australia to study engineering, where he learned to code and became excited about machine learning. Upon returning to Macao, he took traditional engineering jobs at the casino resorts. In 2015, he started his first company in Macao, dedicated to home renovations. But it was 'not too interesting and not good business', he recalls. He then moved to Hong

Kong and started his second company, developing virtual reality home models for real estate companies. He then sold the business to his other co-founder in 2018 and went on to found Casper Technology – and to find the MYEIC.

With his Al know-how, Fong pinpointed Macao's gaming establishments as his target market and looked into where he could have a bigger impact. "We found that the chip counting part should be a good problem to solve and bring added value to the casinos, optimising workflow and avoiding fraud," he recalls. "The technology is very flexible. We just had to see where the business opportunities lay." The 'smart casino' technology, he believes, will 'speed up the whole gaming workflow', generating more gaming and thus more revenue, as well as improving an establishment's data analysis capabilities.

For the next few years, says Fong, the 'goal is to start in Macao but [make the 'smart casino'] open to every casino in the world'. "Macao is the biggest market, so it's the best place to experiment and develop our product," he says. Other potential markets Fong pinpoints are South Korea and Singapore. "Our goal," he says, "is to solve valuable questions in Macao and [then to] start opening to businesses in China and the rest of the world."

Fong is confident that his 'smart casino' has more advantages than the Radio Frequency Identification (RFID) technologies that are also being tested in gaming establishments in Las Vegas and Macao. He claims RFID technologies generate health concerns and are costlier. "We can see where our advantages are," he says, "and we're confident in competing against them. They're very new – but we're even newer."

Starting a tech business in Macao, says Fong, has several advantages, including less competition. And he says the support is there, particularly with the MYEIC. He cites the free

office space with 24-hour access, the consulting opportunities and the business matching

sessions as great benefits to his business.

"Some people," he says, "may even not know that we have so much support here." Fong also cites other incubation centers like Manetic as extremely useful to start-up enterprises. The start-up ecosystem in Macao, in terms of the amount of investors and tech clients, he concludes, 'is not very mature' – but, he believes, 'it is coming'.

Co-founders of Casper, Kazaf Fong and Sampras Lo

Photo courtesy of Kazaf Fon

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National treasure

A great honour was bestowed on the MYEIC in 2018 as it was officially recognised as a 'National Co-Working Space'. In a special ceremony to toast the achievement. Tam Pak Yuen. chairman of the board of directors of PFM Macau, expressed his gratitude to China's central government for its Ministry of Science and Technology listing the centre as a 'National Co-Working Space' - the first of its kind in the Hong Kong and Macao SARs. Tam, who also thanked Macao's government for its support, said the move showed that China supports and attaches great importance to the cause of innovation and entrepreneurship in Macao.

A National Co-Working Space is expected to 'deepen exchange and cooperation' between the Mainland and Macao when it comes to innovation and entrepreneurship. Tam, during the ceremony, noted that it was of 'great significance' for the promotion of Macao's mass entrepreneurship and innovation in the future. He added that it helps the MYEIC integrate into

the standard of National Co-working Spaces, thus marking an important milestone in its efforts to 'improve services and realise professionalism'.

Showing its dedication to entrepreneurship and innovation, the MYEIC last year launched the MYEIC ProQ Alliance's Pitching and **Business Matching Sessions with** gaming operator MGM Macau to help its entrepreneurs connect with large enterprises for procurement and co-operation. The scheme offers young entrepreneurs a one-on-one business matching session to explore co-operation opportunities. According to the chairman of the MYEIC, Chui Sai Peng, within one year, the deals that have originated in these sessions have generated millions of HK dollars in income for the start-ups.

The MYEIC has, over time, also signed co-operation agreements with incubators in Guangzhou, Shenzhen, Zhuhai and other cities in the Greater Bay Area. Through the centre, the Macao Economic Bureau has co-operated with 11 incubators in six cities in the Greater Bay Area to offer

professional consultancy services to entrepreneurs from both Macao and the Mainland. It has also jointly launched the 'Pan-Pearl River Regional Incubation Alliance' together with incubators in all 11 GBA cities. Among other benefits, the alliance allows MYEIC members to access incubators in cities like Shenzhen, where they can meet potential investors, clients or partners.

PFM Macau's parent company,
Macau Investment and Development
Limited, is also responsible for the
development and operation of the
Guangdong-Macao Co-operation
Traditional Chinese Medicine
Science and Technology Industrial
Park (GMTCM Park) in Hengqin.
Last year, reports in the press
suggested that Macao's government
increased Macau Investment and
Development Limited's registered
capital by 88 per cent to MOP 9.2
billion (US\$1.1 billion).

Until 31 December, nearly 300 projects had applied for MYEIC membership, with 120 start-ups actively under incubation at the moment. More than 50 per cent of these projects are in the field of information technology, with others sitting in the business services and cultural industries arenas. The MYEIC has a staff of 30 people who are there to assist the young entrepreneurs in their daily business, as well as in their strategic planning.

Lusophone ties

The MYEIC is a key player when it comes to connecting Macao start-up businesses with enterprises and incubators in Portuguese-speaking countries. For instance, it has signed co-operation agreements with incubators like Portugal's Beta-i, which helps new and established businesses, and Brazil's Fábrica de Startups, which literally means 'Start-up Factory'. Since June 2018, Macao start-ups have

been designated a dedicated area in Beta-i's facilities in Lisbon, as well as government support, to undergo specific acceleration programmes. Fábrica de Startups also offers similar acceleration programmes for young entrepreneurs from Macao.

One of the jewels in the MYEIC's Lusophone crown is the 'Parafuturo de Macao' Innovation and Entrepreneurship Competition, which has been held twice and is run in partnership with PFM Macau and the Macau Association for the Promotion of Science and Technology. The second edition, which was held last summer, attracted 179 projects from Macao, Hong Kong, Mainland China, Portuguese-speaking countries and other territories, which was double the amount of projects from the previous year. More than 90 per cent of the projects were in the science and technology innovation sphere. Last year, Tai Kin Ip told Macao Magazine that the competition was 'aimed at discovering and nurturing entrepreneurs'.

A massive draw for the competition -which saw the finalists visit tech enterprises in the Greater Bay Area so they could participate in roadshows in a bid to garner more interest and investment - was the fact that the MYEIC took advantage of its role as 'an innovation and entrepreneurship exchange centre for the youth of China and Portugal' and attracted 53 Brazilian and Portuguese projects to enter, with four of them reaching the finals. It works the other way, too - many members at the centre have had the opportunity to visit Portugal and Brazil on multiple occasions to learn more about their entrepreneurial scenes. Chui Sai Peng sees these exchanges as important. He says: "This reflects our role as a bridge between China and Portuguesespeaking countries."

Chui says that, over the next three years, there are plans afoot at





the MYEIC to assist Chinese startups who want to explore business opportunities in Portuguesespeaking countries. And he says there are also initiatives being drawn up to help start-ups from the Portuguese-speaking countries who want to launch or further their projects in the Greater Bay Area. "Step by step," he says, "the centre will continue its efforts to connect with other regions and to further explore possible co-operation with African Portuguese-speaking

countries such as Mozambique, Angola and Guinea-Bissau."

Chui says that the MYEIC is monitoring incubators in Portugal, as well as in Hong Kong and on the Mainland, in a bid to get more ideas for the Macao centre. He says the MYEIC team is observing their practices, such as how they promote entrepreneurship through investment mechanisms. "Macao's entrepreneurship started recently," he says. "The quantity, quality and specialties need further enhancements."

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Business

Help from the Mainland

To support innovation and entrepreneurship on the Mainland, Chui says that the central government in China, over the past few years, has made investing in start-up enterprises easier by eliminating legal obstacles, lowering the capital threshold, increasing the amount of foreign investment for start-ups and allowing the establishment of one-member companies. The government has also improved the regulation of the 'supervision and administration of privately offered investment funds', as it's called, in recent years. These measures aim to make investing in start-ups more attractive for venture capital.

The authorities in Macao are also learning from the experiences of government-led venture capital funds in China, Israel, Australia and Canada, says Chui. Although the funds are different to each other, he adds, they all show the country's governments putting money in to promote the development of specific industries that are 'not entirely for profit'. "What can we learn from these successful practices?" asks Chui. "Obviously, up-to-date laws and regulations and strong policy support are indispensable when it comes to promoting early-stage venture capital. Appropriate government promotion and market intervention can help stimulate the development of start-up industries."

Macao, adds Chui, is able to integrate with the Greater Bay Area in terms of market, talents and investment and the city is also able to introduce venture capital funds from the Mainland and overseas, considering 'the opportunities brought by the Guangdong-Hong Kong-Macao Greater Bay Area and the Belt and Road' Initiative, as well as 'the advantages of the Science and Technology Innovation Corridor', along with 'the business and trade platform between China and

Portuguese-speaking countries'.

Across the border, the MYEIC is co-operating with the Ministry of Science and Technology's Torch High Technology Industry Development Centre, which was founded in 1989 and aims to encourage the development and industrialisation of high technology. China's Torch Programme, a guidance programme for developing new and high tech industries in the Middle Kingdom, has created more than 150 high tech zones across China and, more importantly, has become the engine room of innovation, urbanisation and economic growth. According to the Torch Innovation Precinct at the University of New South Wales in Australia, which is a Torch Programme partner, the scheme is responsible for more than 11 per cent of China's entire GDP, more than 10 per cent of the country's total industrial value and close to 16 per cent of its total foreign exports.

Landmark projects

One of the 'landmark projects' for Chui is the co-operative project with the Torch Programme in establishing the PFM Torch Innovation Park in Zhongshan. Already in operation, this is one of the first three Guangdong-Macao youth innovation and entrepreneurship bases in the province that's recognised by the Guangdong and Macao governments. The others are the Macao-Henggin Youth Entrepreneurship Valley - or Inno Valley HO - that has incubated hundreds of companies over the years, and the Guangzhoubased Guangdong-Macao Young **Entrepreneurs International Industry** Accelerator. The Zhongshan base has an area of 18,000 square metres, providing office, conference and exhibition spaces. It also offers entrepreneurial services, namely startup consultancy, marketing and investment and finance services.

The Macao Innovation and Entrepreneurship Education Centre, another key project, is set to be launched over the next three or four months. Operating inside the MYEIC's facilities, the centre will work with Chinese multinational conglomerate company Alibaba and Macao financial media firm New Fortune to provide business training schemes and courses that focus on topics such as cloud computing, big data, the 'Internet of Things' and new media applications. Anyone who is interested in starting a business can attend. With the help of these companies, says Chui, 'entrepreneurs can master new thinking, strategies, actions, self-examination and sustainable development'. "This will help our new generation of entrepreneurs better prepare for the new economic era and ensure their sustainable development in the future," he says.

The MYEIC has quickly become a success story - but it's clearly not resting on its laurels and is making bigger and better plans for the future to help nurture and accelerate the startup scene in Macao. Chui and his team at the centre are proud of their successes so far and this perhaps mirrors China's startup success on a global scale. In last year's Fortune Global 500 list - the list of the world's top 500 companies in terms of revenues and profits - 129 firms hailed from China compared to 121 from the USA. For Chui, 'this reflects the fact that China's startups are a sign of economic vitality'. "The potential of startups is unlimited," he adds, before concluding with his 'unicorn company' - a privately held startup valued at more than US\$1 billion (MOP 8 billion) - ambition for the MYEIC. "Our ultimate goal," says the chairman, "is to incubate a unicorn company from Macao." It's a dream that, given the centre's swift ascendency, could happen sooner than you'd think.

CASE STUDY: FOLLOW ME MACAU

Leisure and entertainment are close to Marco Duarte Rizzolio's heart. The Portuguese entrepreneur forever holds the distinction of being the first person to be 'incubated' at the MYEIC in 2017. After living in Spain and Brazil, he and his Macao-born wife decided to raise their family in the SAR and Rizzolio came up with his Follow Me Macau app due to the fact that the city is a major tourist hotspot in the region. The app offers local entertainment and leisure experiences, similar to Hong Kong's Klook. The booking engine offers some of Macao's most popular attractions, like bungee jumping at Macao Tower and The House of Dancing Water show at the City of Dreams entertainment complex, as well as activities like bike tours and egg tart workshops.

Having gained a foothold in Macao, especially among Westerners, the start-up is now looking to expand to Mainland China and Portuguese-speaking countries. "Macao can be a good laboratory for entering China," says Rizzolio. Focusing only on the Western corporate niche, which Rizzollio estimates as a mere five per cent of the tourism market, the startup broke even in just 14 months. Last year, its income more than doubled to HK\$1.3 million (MOP 1.34 million) and the entrepreneur thinks it's now time for the next step.

"Now we have interesting numbers," says Rizzolio. "There is a case to show here. If we capture Chinese clients, then we can double or triple [our income] and then offer experiences in Portuguese-speaking countries." Africa is not a hotspot for Chinese tourists but Rizzolio says that the 'potential is enormous'



in countries like Mozambique, especially among the growing millennials market. A Follow Me Mozambique booking engine, he says, is already in the works. As is a Follow Me Portugal. Venturing into the Chinese market demands bolstering the team and the start-up is looking for Chinese speakers for marketing, sales and digital roles.

A lecturer in tech entrepreneurship, Rizzollio values being in the Greater Bay Area. And he believes having access to various incubators in the region, like in Shenzhen, will help grow his business. Macao may not be a start-up hotspot just yet but it will get there, he believes. He says that Hong Kong initiated its drive to become a startup haven 20 years ago and the USA's Silicon Valley began its ventures 35 years ago. Lisbon, he reckons, started seven years ago 'and already a lot of things are happening' there. "In Macao," he concludes, "we are only in year two [of MYEIC's support programme] but there is a strong political will. The ecosystem will develop but it will take time."







Macao's heritage has been forming for more than 450 years. Since 1557, when Portugal was granted the territory by China as a trading post, the city has created its own unique and fascinating history – one modelled by heavy Chinese and Portuguese influences, as well as influences from many countries and cultures in between.

For years, locals and tourists alike have been able to admire relics from the past like the Ruins of St Paul's, the Guia Lighthouse and some of the oldest temples for miles around, such as the A-Ma Temple in São Lourenço, which was built in 1488 and proves that Macao's heritage stretches back even beyond the past 450 years. These monuments to a bygone era still colour the city, attracting throngs of tourists and creating a metropolis that mixes its modern adeptly with its uniquely historical.

Nowadays, the stucco-clad walls of the Fortaleza do Monte – Mount Fortress, which stands above the Ruins of St Paul's and houses the Macao Museum – that once dominated the surrounding land are a main focus of the 'Historic Centre of Macao', one of the most important UNESCO World Heritage sites of its type. The Historic Centre was inscribed on the World Heritage List in 2005 and covers culturally and historically important sites like the Moorish Barracks, Senado Square and St Joseph's Seminary and Church.

But all that is what you can see. It's Macao's 'tangible' heritage. What's equally important is all the

It is difficult to understand the city's past or present without taking the Catholic heritage into account, especially given the heavy involvement of Catholic churches in charitable organisations.

history you can't see – the 'intangible' heritage. The stories, the traditions, the beliefs and the customs. And now there is special attention in the SAR on this side of heritage, which also attracts tourists and reminds locals about the territory's past. This is the untouchable history of Macao that the government, among other bodies, is keen to preserve.

Not all heritage is created equal

Mariana Pereira is an expert on heritage and archaeology. She is a PhD researcher at the UK's Cambridge University but she knows Macao and its history extremely well and has previously worked in the city's heritage sector. Pereira says that the city's heritage management framework is based on UNESCO's recognition of the two types of cultural heritage – 'tangible' and 'intangible'. She says that most people are familiar with what UNESCO terms as 'tangible' heritage – the physical remains of history, whether historic buildings or objects.

However, for Dr Priscilla
Roberts, the associate professor
at the City University of Macau's
Faculty of Business – who also
doubles as a specialist on Asian
history, previously holding the
title of associate professor of
history at the University of Hong
Kong – Macao's tangible heritage
isn't just about the main buildings
that make up UNESCO's list. Its
tangible heritage includes all the

'temples, churches, houses, shops, forts, tiles on street signs, mosaics, tiny Chinese shrines, the Leal Senado building and its associated library, lighthouses, administrative buildings and pawn shops'.

Macao's tangible heritage is protected by the Cultural Heritage Protection Law (No 11/2013) which the government's Department of Cultural Heritage is responsible for enforcing. However, Article 71 of this law also defines what intangible heritage should be protected. Under Article 71, intangible heritage includes oral traditions, artistic expressions, religious practices and events and practices related to nature and traditional crafts. What actual examples fall within these broad

areas, though, is decided through 30-day public consultations conducted under Article 79 of the law – and the list is always subject to change. As of the last public consultation, just last year, bamboo scaffolding, as well as beliefs and customs associated with two Chinese folk deities, Tou Tei and Chu Tai Sin, have now come and gone from the list. But many important examples of intangible heritage have stayed the course...

Religion and faith

It is estimated that, out of a population which is creeping towards the 680,000 mark, there are about 30,000 Catholics living in Macao. For them, the rich Catholic history of the city is of huge importance - as it is to the throngs of Catholic tourists who visit the territory every year. There are also more than 8,000 Protestants residing in the city. It is - as Dr Roberts notes - 'difficult to understand the city's past or present without taking the Catholic heritage into account, especially given the heavy involvement of Catholic churches in charitable organisations'.



The Portuguese brought a strong Catholic presence into Macao as early as the 16th century. The city became home to Catholic missionaries and, over time, the churches and cathedrals that have come to dominate the cityscape were built. Since the 18th century the proportion of Catholics in the city has been declining but that does not mean its heritage should not be protected, whether tangible or intangible.

One such example of Catholic intangible heritage is the religious procession. There are multiple processions throughout the calendar, including the annual Procession of Our Lady of Fátima, which takes place on 13 May every year. Macao's Catholic population can be seen swaying into the dark night through a sea of glimmering electronic candles and phone screens during the procession. A small white figure with hands clasped in prayer is carried and she snakes her way above thick crowds of people in a magnificent spectacle.

The small white figure is a statue of the Virgin Mary and the procession winds its way from St Dominic's Church, through the Nam Van and Sai Van areas, and finishes at the Chapel of Our Lady of Penha, at the top of Penha Hill, where a solemn religious ceremony is held. The event recalls the apparitions of the Virgin Mary to three shepherd children in 1917 in the central Portuguese town of Fátima. The appearance of Our Lady at Fatima culminated in, later that year, also in Fátima, the 'Miracle of the Sun', when the sun was said to have danced and changed colours in front of a crowd of more than 30,000 people. It was a moment which validated the faith of many Catholics.

The Procession of Our Lady of Fátima has a similar effect every year in modern Macao as it binds Catholic Macao residents with, as Pereira explains, immigrants and visitors, such as people from the Philippines



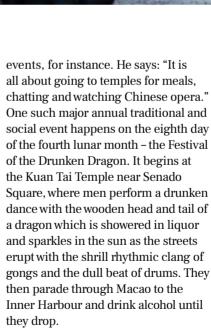
who, united in faith, also carry the colourful tradition into the night. In all, Macao's Catholic processions are, as Dr Roberts muses, the modern 'expressions of deeply felt religious beliefs'.

Beliefs and traditions can disappear or fade away slowly in the modern world.

Traditional Chinese cultural and religious beliefs are just as important when it comes to Macao's heritage. Na Tcha Temple, built in 1888, is a Chinese folk religion temple in St Anthony's Parish - the first of two Na

Tcha Temples in the city - dedicated to the worship of the deity Na Tcha. The chairman of the Na Tcha Temple Association is Ip Tat and he says that after the transfer of administration from Portugal to China took place in 1999, 'more and more festivals were protected' and 'Macao citizens started to pay more attention to all kinds of culture, including traditional Chinese beliefs'. In modern Macao, Ip muses that 'Chinese faith is integral to the city' and that 'there are a lot of travellers who go to Macao just to visit the temples and churches'. For Dr Roberts, this belief can be seen in terms of daily observances, small shrines and offerings to the gods' across the city.

For Ip, who grew up going to Macao's temples, 'they are not just about belief'. He says that the temples create the communities that organise traditional and social



The origin of the festival, as Ip notes, are uncertain. It is likely that the tradition originated in China for, as Dr Roberts says, 'Macao is also part of southern China - it's not surprising if its heritage is closely related to the region'. Some believe the festival has

its legendary origins in Guangdong's old Xiangshan county, which was renamed the county of Zhongshan around 100 years ago. One story tells of a dragon that was struck dead by a man who had been given courage by alcohol. The beast lunged from a river at a collection of villagers who were pleading to a statue of Buddha to be cured of a great plague. On drinking the river water, reddened with the dragon's blood, the villagers found themselves cured of the disease.

Subsequently, it is believed, the Festival of the Drunken Dragon was established to ward off plague. As it spread to Macao, reckons Ip, it grew from the preserve of the city's fishmongers and soon became a major cultural event. Today, says Ip, the festival begins with fishmongers gathering on the eve of the procession to eat a 'dragon boat longevity meal' together. On the morning of the

procession, as the dance begins, 'dragon boat longevity rice' - rice that brings peace and prosperity to the tens of thousands of people who consume it - is distributed outside Kuan Tai Temple. The rice, the dance, the atmosphere and the crowds - it all makes for a unique Macao experience, one that is also protected as a great example of the intangible heritage on show in the city.



Some would say food is a religion in itself - however, as a protected item of intangible heritage in Macao, it is in a completely separate category to faith. It is held, though, in equally high regard as one of the city's most important examples of intangible heritage due to its unique background and taste. Macao has enjoyed nearly five centuries of culinary history,



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which, as Pereira notes, has been constructed from the many different cultures that have passed through the city. As the Portuguese moved to Macao, so too did their ingredients the spiced pork and pepper chouriço sausage, olives, dried salted cod and many other foods, all of which can still be found in and around the city. Portuguese dishes were also imported, like clams in white wine and 'arroz de marisco', or seafood rice, and they serve as the bedrock of Macanese cuisine. Both of these dishes are still served at restaurants like Portuguese establishment A Lorcha, near the

A-Ma Temple.

Pereira explains that as Portugal grew as a trading empire, so too did its access to new ingredients. Cinnamon, saffron, pepper, chilli and cloves all travelled across the world with the Portuguese, many of these spices ending up in Macao as did the different recipes and cooking methods from across the Portuguese territories. It is probable, though debated, that African chicken, still a popular dish in Macao, originated in the Portuguese territories in Africa before it was brought to Macao. The dish personifies the culinary fusion that makes up Macanese cuisine the pepper hails from Portugal, the peanuts from Africa, the spice from China and the coconut from India, with the cooking techniques learned from those lands.

Macanese gastronomy is primarily based on cooking methods from Portugal but it incorporates styles and ingredients from Africa, India, Malaysia, China and other places across the globe. It takes some of the best of each and was allowed to develop over time in an independent and unique manner. Pereira says that Asian foods really helped to shape its style, especially ingredients like of different cuisines but how they interact with each other. She says that, as the Portuguese settled in Macao, they married people from all over Asia and beyond – from places like Japan, India, Malaysia, Africa and China. As families became ethnically mixed, so did their food. Different culinary traditions began to merge to create new dishes. Portuguese dishes were changed to use local ingredients in

place of imported ingredients
that were hard to find at a
particular time in the city.

Over the years, the unique and eclectic Macanese cuisine developed, including the British-inspired ground meat dish of minchi, which is beautifully flavoured with molasses and sov sauce. Then there's stir-fried curry crab, pork chop buns, egg tarts and 'pato de cabidela', a stew made by cooking duck in red wine and its own blood. For Pereira, the nature of Macao as a trading

hub has created a food that exists nowhere else in the world. She says that it's this unique fusion of cuisines from around the world – which, for a few patacas, anyone can experience – that led to UNESCO, just over two years ago, to recognise Macao as a Creative City of Gastronomy, an honour that also helps to protect and promote this deliciously intangible piece of Macao's heritage.

as well as the introduction of curry. Chinese ingredients were, of course, of prime importance to shaping the cuisine, as was the introduction of Yue cuisine, the culinary style of Guangdong province. Macanese gastronomy survives today and is repeatedly promoted and supported by

Malaysian coconut milk, Indian spices,

Southeast Asian ginger and tumeric,

of the city's heritage.

What marks Macanese
gastronomy as unique, explains
Pereira, is not actually the abundance

the government as an important part

Art and soul

In the serene gloom of a small Macao theatre lies a black stage on which a puddle of light illuminates a painted wall and a couple of haphazard chairs. A handful of players gesture excitedly as they strut back and forth across the space, acting out their stories for the expectant audience. As the crowd intently listens, they hear the players speak in a language that sounds like a mish-mash of Cantonese, Portuguese and English. Welcome to one of the Macao theatres that stages traditional plays and welcome to a dialogue that is not made up of three languages at all – these actors are speaking Patuá, the traditional language of Macao.

As Pereira explains, Patuá

initially developed among the descendants of mixed Portuguese and Asian families in Macao in the 16th century. It was once widely spoken and evolved as other languages do, merging words from lands like India and Malaysia into the Portuguese and local Cantonese hybrid language. By the 19th century, however, Cantonese was much more widely spoken in Macao, as was English, which was entering the city from Hong Kong. What was once the language of trade in the city was, by the 1950s and 60s, as Pereira puts it, 'no longer considered to be Portuguese proper'. Today, only a handful of people speak the language in Macao - UNESCO, over the past few years, has even estimated as few as 50 people speak it, deeming it a critically endangered language in the process.

Pereira says that 'modern Patuá differs in many ways to past Patuá' due to the natural evolution of the language and the fact that it is now only used by a small number of people and doesn't serve the important cultural role that it once did. "The people in Macao no longer use it to communicate," she says. "It's also no longer used in schools. But if people don't think the language is important any more then we can't make communities speak it if they don't want to. But we can record it in a register if people, one day, want to





Colourful Patua Theatre scenes in Macao; (opposite page) traditional Macanese minchi

go back to it and learn it. It would be so sad if it disappeared, though. Every language is a way of perceiving the world so a world view is gone when a language fades away."

The language of Patuá is not recognised as an item of intangible heritage in Macao – but the art of Patuá theatre features prominently on the list. Since the 1930s, Patuá theatre has regularly passed satirical judgement on the shifting politics and social movements of the city as well as providing an animating

or moving show for local theatregoers. In recent years, theatrical company Dóci Papiaçam di Macao, which was founded in 1993, performs annually at May's Macao Arts Festival using Patuá language performances to lightheartedly mock local traditions and events and, of course, to entertain. Pereira says these performances showcase the language, noting that they act as a focus for the community and experts alike to consider how Patuá should be safeguarded for future generations.

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Macanese lawyer Henrique Miguel Rodrigues de Senna Fernandes is a playwright and director of Dóci Papiaçam di Macao. He says: "Patuá theatre gives diversity to the cultural panorama of the SAR. It reflects the multiculturalism which is the essence of Macao and that's the concept the SAR cherishes and embraces. Through Patuá theatre, the audience can experience an environment where the context is neither Chinese nor Portuguese as it's in a language that is genuinely from Macao." The director says that Patuá theatre is a Western-style theatre that 'relies highly on the language' and 'reflects the voice of the anonymous common citizen' but there are always comedic elements like slapstick and satire. He says that Macao's intangible heritage, including Patuá theatre, 'tells how unique this tiny little city is from the rest of China'. "Heritage is a way to promote our sense of belonging," he concludes. "In the age of globalisation, being different should always be cherished."

Safeguarding the future

As Macao continues to evolve as a city, its tangible heritage will likewise change. Much tangible heritage already survives but, as Pereira notes, although 'we safeguard older buildings' with good examples of reuse such as Mount Fortress, with Macao Museum nestled within its walls, 'some buildings are demolished'. "This is to do with the values we give to them," she says. Ip adds: "The government

does a very good job in protecting Macao's heritage, however it should be everyone's obligation to protect heritage. It isn't much help if people just rely on several organisations and the government."

Yet tangible heritage is only part of what makes Macao such a unique historical city. Even a cursory glance at some of Macao's intangible heritage items shows how the city's complex past is alive and well, even if you can't 'see' many of the elements that make it up. But Pereira warns that even when items of intangible heritage are safeguarded, like in Macao, they can be 'frozen or commercialised', accruing stakeholders who could make protection complicated and traditions inauthentic. Moreover, as Ip laments, not all intangible heritage survives. "Beliefs and traditions can disappear or fade away slowly in the modern world," he says.

As Macao puts greater emphasis on heritage tourism, intangible and tangible heritage are becoming intertwined. For example, when a temple is preserved, so are the festivals and traditions of the communities who use that building. Perhaps the sky-high bamboo scaffolds that cradle every Macanese construction sum it all up perfectly. Bamboo scaffolding is no longer present on the intangible heritage list because, some would say, it is not a remnant of Macao's past. It is a living tradition that survives within the modern cityscape. This fusion of intangible and tangible heritage gives Macao a heritage to celebrate long into the future.



To help document Macao's intangible heritage, the International Institute of Macau published a book on all 12 elements just last year. The trilingual book gives an introduction to each element coupled with an array of beautiful photography. It's available on bit.ly/2uWCf5x.



MACAO'S LIST OF INTANGIBLE HERITAGE

The 12 items on the current list represent Macao's unique past

1 The belief and customs of A-Ma
The traditional customs and beliefs
that surround the patron goddess of
fishermen, A-Ma, date back hundreds
of years. According to legend, Macao
may have drawn its name from her.

2 The belief and customs of Na Tcha

The beliefs and customs that surround the Na Tcha date back 300 years in Macao. The child-like god is believed to drive away demons and disasters and, according to legend, used to play on Mount Fortress.

Cantonese Naamyam Cantonese Naamyam are stories,

Cantonese Naamyam are stories, narrated and sung by the blind. In the 1950s, this art was popular in Macao, with stories performed regularly on the radio.

4 The Festival of the Drunken Dragon

> The yearly Festival of the Drunken Dragon is traditionally celebrated by local fishmongers to bring prosperity in the coming year.

5 Herbal tea brewing

Brewed from traditional Chinese herbs in southern China, herbal tea has been used to prevent disease for centuries. Macao is known for its brewing and it exports herbal tea across the world.

Macanese gastronomy

For more than 400 years different ingredients and recipes entered Macao from Portugal, China and across the world. As these ingredients and recipes combined, it produced the unique Macanese cuisine.

7 Patuá theatre

Patuá is a traditional Macanese language. Special theatrical performances are a great way to keep it alive.

8 The Procession of Our Lady of Fátima

The procession falls annually on 13 May, commemorating the supposed miraculous appearances of the Virgin Mary to three children in Portugal in 1917.

9 The Procession of the Passion of Our Lord, the God Jesus

Every Lent, this two-day procession, which dates back to 1708, takes place in Macao's streets. It follows the form of the 'Way of the Cross', recalling the experiences of the passion and death of Jesus as depicted in the Bible.

10 Religious wooden figure carving

For more than a century, the art of carving sacred images in wood, such as depictions of Buddha, have been handed down from generation to generation in Macao. This skill survives today.

11 Taoist ritual music

Taoism is common across southern China, including in Macao. However, the ritual music that was created in Macao was so influenced by local culture that it is now unique within Taoist music traditions.

2 Yueju Opera

Surviving across southern China, including in Macao, Yueju Opera is famous for its bright costumes, traditional instruments and acrobatic performances.

 \sim 69

History

Claims to fame

Text Rafelle Marie Allego and Mark O'Neill

Macao has been home to many people who were once – or still are – considered famous. Here are nine former residents of the city we consider have a claim to eternal fame.

Por hundreds of years, Macao has seen famous people come in and out of the city. Literary maestros, artistic talents, political pioneers and religious leaders have visited the territory regularly, some staying for a short while and others just passing through. Here are a handful of men and women who we can call both 'famous' and, at one time or another, a 'resident'.

Fame is subjective. But for the purposes of this list, we have chosen people from all times in history who found fame and who you may not know were born or lived in Macao for at least a short period of time, if not their whole life. So here is our pick of 'famous residents', from many years ago until the recent past...

The Jesuit missionary

Jesuits are members of the Society of Jesus, a Roman Catholic order of priests founded by men like St Francis Xavier in 1534 to do missionary work. And in the mid-16th century they set out from Europe and headed across the world to do just that. Far corners of the East were converted to Christianity, however China took longer for

them to reach. St Francis Xavier. for instance, died on an island near to Macao in 1552 before he could make it to the Mainland. A successful attempt to reach the country and begin missionary work was later made by Michele Ruggieri and Matteo Ricci - leading to the eventual growth of Catholicism in China - but it couldn't have been made possible if it had not been for Alessandro Valignano, who knew the Jesuits wouldn't get far on the Mainland without a sound understanding of Chinese language and culture. So he moved to Macao, supervised the instruction of

the missionaries and helped to introduce Catholicism to the East, from India to China and Japan.

Born into aristocracy in

February 1539 in Chieti, in the Kingdom of Naples, Valignano excelled as a student from early on, obtaining his doctorate in law at the age of 19 from the University of Padua. He studied Christian theology further in 1562 and was admitted into the Society of Jesus in 1566. In 1573, he was sent to East Asia - a controversial move at the time as he would become an Italian supervising mostly Portuguese missionaries. But his excellent work soon went before him. At the age of 34, he was appointed the papal representative to the Indian subcontinent through his role as Visitor of Missions, overseeing all Jesuit missions in Asia. He was first stationed in India but, in September 1578, he arrived in Macao and, while living in the city, he visited Japan three times, where he advocated for Japanese priests to be nurtured and treated equally to the European Jesuits.

One of Valignano's greatest contributions to the cause was his work in founding St Paul's College in Macao – which was part of the church complex that was destroyed



by fire, creating what we see today as the Ruins of St Paul's – in 1594. Here, the Jesuit university served to prepare Jesuit missionaries travelling east. In Macao, Ruggieri and then Ricci were sent to join him to study Chinese, at which they excelled. The two men became the first European scholars of China and the Chinese language.

During his life, Valignano, who certainly focused more on Japan than China but was nevertheless integral to the success of the later missions into the Middle Kingdom, managed to pave the way for a closer relationship between Asian and European people by advocating equal treatment for all. His legacies lie across Asia, not least in Macao. On 20 January 1606, he died in Macao and was buried in the Church of St Paul, where the Ruins of St Paul's stand today. However, his efforts in promoting closer relations between Asia and Europe are an important and memorable part of world history.

The Swedish merchanthistorian

Macao has been home to many well-known merchants and historians over the years – but few residents have been both. However, Anders Ljungstedt, in the early 19th century, became famous for his history works in the city and for his success as a charitable merchant who sent money back to his homeland to help educate poor children. The Swede's name is still remembered in the city for the important work he put into charting Macao's colourful past.

Ljungstedt was born on 23 March 1759 to a poor family in Linköping, southern Sweden, and he attended the country's Uppsala University for a short period before being forced to withdraw due to a lack of funds.



So, in 1784, he travelled to Russia and worked as a teacher for the next decade before returning back to his homeland. Back in Sweden, he was hired by the country's government and served as a Russian interpreter for King Gustav IV Adolf, who ruled the nation from 1792 to his abdication in 1809, during the royal's journey to Russia.

His move to Macao came about after Ljungstedt was hired by the Swedish East India Company, which took him to Guangzhou, where he stayed as a supercargo - a representative of the ship's owner on board a merchant vessel, responsible for overseeing the cargo and its sale. The company, however, folded in 1813, so he began working as a merchant himself - a career he would follow until he died. Ljungstedt liked China and its climate so he stayed and settled in Macao, amassing a big fortune and sending a lot of money back to Linköping to help start a school for poor children.

Ljungstedt became extremely interested in Macao's history after he settled. He researched the city's past thoroughly and published a work that went on to be of great historical importance: 'An Historical Sketch of the Portuguese Settlements in China and of the Roman Catholic Church and Mission in China and Description of the City of Canton'. It's still seen as an important work today, with a new edition created as recently as 1992 in English. At the time, the merchant also became famous for being the first Westerner to refute the Portuguese claim that the Ming dynasty had formally ceded sovereignty over the territory.

During his life, the King of Sweden made Ljungstedt a Knight of the Order of Vasa – an honour awarded to Swedish citizens for their service to the state and society,





especially in commerce, agriculture or mining – and in 1820 he was also appointed as the country's first Consul General in China. He was painted by famous English artist George Chinnery during his days in Macao and he died on 10 November 1835 after never returning to Sweden since he set foot in China. He was buried in the Old Protestant Cemetery and, in 1997, the Avenida Sir Anders Ljungstedt was named in his honour, cementing this merchant historian's place in Macao's memory.

The missionary on a mission

A grave lies in the Old
Protestant Cemetery next
to St Michael's Church in St
Anthony's Parish. The remains
of an extremely important man
lie within. Every year, Chinese
Christians from across the world
travel to the cemetery to lay flowers
on Robert Morrison's grave.

Robert Morrison is seen as the father of the Chinese Protestant Church. He gave 27 years of his life to Macao and Guangzhou and he is famous for translating the entire Bible into Chinese. He was born on 5 January 1782, in Morpeth, England, and he became a missionary with the London Missionary Society as a young man. He arrived in Macao in September 1807 and it looked like mission impossible - the Chinese were banned, under pain of death, from teaching their language to foreigners. After being expelled from Macao, he settled in Guangzhou, where he secretly learned Chinese from a few friends. Also in secret, he began to evangelise.

In February 1809, he was appointed translator by the East India Company and able to live comfortably in Guangzhou.

Overcoming many difficulties, he completed his translation of the Bible into Chinese. In 1824, he returned to Britain and presented his large collection of Chinese books to University College, London. In 1826, he returned to Guangzhou – his small group of converts was growing in



number. He lived some of that time in Macao again, where he continued to study Chinese and teach what he knew to others.

Morrison wrote widely in China, including works on Chinese grammar and numerous religious tracts and articles. He conducted services of worship in his own home, in English and Chinese. Between 1827 and 1834, he also conducted several funerals in Macao. His social life in Macao was limited, however, due to his poor health, his busy work schedule and his disapproval of Catholicism, the religion of the city's Portuguese residents. He was also haunted by a moral conflict - while he was spreading Christianity, he made his living from the East India Company, which earned almost its entire profits from the illegal sales of opium. He was, it is said, never able to resolve this inner conflict.

In June 1834, Morrison prepared his last sermon. He was dangerously ill. On 1 August, he died at his home at the Danish trading house in Guangzhou at the age of 52. Only his son – John Robert Morrison, an important interpreter and adept government official in Hong Kong who translated the Treaty of Nanjing in 1842 and is buried in the same cemetery as his dad – was at his side. The next day his remains were taken to Macao and buried. Robert Morrison was a man of profound religious faith and enormous determination, becoming a model for thousands of missionaries who followed his footsteps into China.

The saintly resident

Saint Andrew Kim Taegon, the patron saint of Korea and the first Korean-born Catholic priest, once lived and studied in Macao. He was born in Solmoe in south-central Korea in 1821 and grew up in his native country – his parents were Catholic converts and his father was martyred in 1839 for practicing Christianity, which was prohibited in Confucian Korea in the 19th century – and he was baptised while living in relative poverty at the age

of 15 years old before heading to Macao.

In 1836, Kim travelled more than 1,200 miles in secret to get to Macao and enter St Joseph's Seminary, which was built more than 100 years prior and had become one of the principal bases for missionary work across Asia. Kim got there on foot and in small fishing boats. Christianity was banned in Korea and in China, so the nearest place he could go to complete the studies needed to become a priest was Macao.

Kim underwent a gruelling six years of study in Macao in an environment that was foreign to him and in languages that were new to him. He had to learn many subjects, including Latin. Mandarin, theology, philosophy and the history of the Catholic church. When he arrived, he was just a teenager, living away from home and among Europeans and Chinese but he excelled and in 1842, he acted as an interpreter on a French warship. He was also present at the signing of the Treaty of Nanjing, also in 1842, which marked the end of the First Opium War between Great Britain and China.

Kim left Macao after 1842 and. after nine years of study, he was ordained a priest in Shanghai in 1844. He then returned to his native country to evangelise, which was an illegal activity. In June 1846, he was arrested after a failed attempt to smuggle French missionaries into Korea and on 16 September 1846, he was tortured near Seoul on the banks of the Han River before being beheaded. A statue of him stands in the Luís do Camões Garden in Macao, which has become a place of pilgrimage for thousands of Korean Catholics. On 6 May 1984, Pope John Paul II canonised Kim and 102 other Korean martyrs during a visit to South Korea.

The lady of letters

Picture the scene: it's 1830 and an American girl of just 21 years of age stands on a small boat with her aunt in the moonlight. The boat is making its way up a quiet river and the girl stands in awe as she admires the lines of pagodas and boathouses - sights she has never seen or even imagined before. Both women are dressed as boys, wearing velvet caps and cloaks, and both are full of excitement as they become the first American women to head into the depths of what was then known as the city of Canton now known as Guangzhou - a city that was strictly prohibited to any foreign females.

We know this story happened because the young woman, Harriet Hillard, wrote her experiences down in letters to her elder sister Molly letters which survived and later made up one of the most interesting records of life in Macao at the time, told uniquely from a female perspective. Hillard, a woman of letters and a diarist, lived in Macao between 1829 and 1833. Her journal in the form of those letters ran to nine volumes, filling a total of 947 pages. In it, she describes Macao's rich diversity, including the Portuguese Catholic life and the vibrant culture of the Chinese community. The anthology is now part of the Low-Mills collection in the USA's Library of Congress.

She was born Harriet Low on 18 May 1809, the second of 12 children of Seth and Mary Porter Low of Salem, Massachusetts. Her father was a wealthy merchant and owner of a successful shipping business. In 1829, her uncle invited her to accompany him and his wife

- her aunt - to China. He worked in Guangzhou, while Hillard and her aunt lived in Macao. As the only single Caucasian woman in the city, she became a social hit and came to know many prominent people, including artist George Chinnery, who painted her portrait (below). Despite a strict ban on women entering the business district of Guangzhou, she and her aunt dressed like boys and went there. When the Chinese discovered them, they threatened to stop all trade in the city, so Hillard and, soon after, her aunt left within three weeks so no further damage to relations was done.



After she left Macao, she married an Englishman and settled in London, gaining the Hillard name. She had three sons and five daughters. After the failure of her husband's bank in 1848, the family returned to the USA, moving in with Hillard's father in Brooklyn, New York. Her husband soon became 'unstable and sick' and was unable to work. He died in 1859 and Hillard died in 1877. But her letters live on.

The Portuguese poet

Symbolism was an important artistic movement in Europe in the 1860s, 70s and 80s. Originating in Belgium, France and Russia, the style - which loosely focused on attempts to evoke rather than describe, using symbolic imagery to signify the state of the artist's soul - greatly influenced many following artistic movements. Poetry was at the heart of Symbolism and the Portuguese arm of the movement produced a number of great poets but none so celebrated as Camilo Pessanha, a Macao resident with a flair for verse.

Born on 7 September 1867 in the riverfront city of Coimbra, Pessanha was the illegitimate son of an aristocratic law student and

his housekeeper, and the eldest of five siblings. His father,

upon graduating in 1870, was appointed a public defender in the mid-Atlantic Azores archipelago so the family moved there before moving once more in 1878 to Lamego in northern Portugal, where Pessanha completed his basic schooling. Following in his father's footsteps, he entered law school at Coimbra University in 1884. A year later, he wrote his first poem, 'Lúbrica' which translates to 'Lascivious' in English. This was the beginning of his career as a poet and some of

Pessanha, who had been in frail health due to depression, was fascinated by the East so in August 1893, he applied to be a philosophy teacher at a newly established school in Macao. He was appointed to the role on 18 December and sailed out the following February, arriving in the territory on 10 April

his early works were published in

local newspapers.

1894. Immediately, many people thought him eccentric and his union with a Chinese concubine who he bought in 1895 raised many eyebrows but despite this he became a respected teacher of philosophy, history, geography, Portuguese literature and law. He had a son with the concubine a year later and, over the following years, he became a central figure in Macao's cultural, political and civic world. During his time in Macao, he also met the 'Father of the Nation', Sun Yat-sen. There's even photographic proof that points to evidence of good relations between the two men.

Pessanha didn't really have a claim to fame until 1916, when his innovative Symbolist poetry was published in the progressive magazine 'Centauro'. His works then became known and loved in Portugal and further afield, including his celebrated poetry book 'Clepsidra', which was published in 1920. The imagery and musicality in his verses caught the eyes and hearts of many later poets and his works influenced a whole host of Modernists. Pessanha also had the unique talent of rewriting his works from memory and also used to give many of his favourite poems to close friends.

Nominated a public defender in Macao in 1900, then a judge later on, Pessanha passed his time in the city by composing poetry and immersing himself in the local culture. This culture became incorporated into his writings and also earned him much respect as a European authority on Chinese culture in the territory. Sadly, however, he also had a penchant for opium and on 1 March 1926, he died from tuberculosis which developed due to his addiction to the drug. He is buried in the Cemetery of St Michael.



The first woman priest

Macao may not have been occupied by the Japanese in the Second World War but the conflict was by no means an easy time for the city. After the fall of Hong Kong in December 1941, Macao's population tripled from 150,000 to nearly 500,000. At no other time previously in its history had the city had to support so many people. Thousands died on the streets of starvation, cold. malaria and cholera.

In the midst of the chaos was a remarkable lady from Hong Kong, Florence Li Tim Oi, a deaconess in the Anglican Church. She was born Li Tim Oi on 5 May 1907, later taking on the name Florence when she was baptised in honour of Florence Nightingale, the celebrated British founder of modern nursing. She studied at Union Theological College in Guangzhou, graduating in 1938 and then serving in lay ministry in Kowloon, Hong Kong. In 1940, she was sent to Macao to serve those in distress, starting with the congregation of the Morrison Chapel, many of whom were

refugees. She led services in the church in Chinese and English and also worked in a girls' school to help and care for the needy. She also helped the refugees live in the open, working as a nurse, helping them secure food and lodgings and burying their dead.

Li Tim Oi also secured credit for at least one coffin in Macao. It was for a destitute widow who needed to bury her husband. As the death toll rose due to starvation, she wrote that sometimes, as she walked to church, she saw 'the bodies of those who had died of hunger in the night lying on the side of the road'. She said that 'sometimes I find myself walking behind the men who have the job of picking up the bodies and putting them into a big wooden box cart to take them to the grave. They pack them one on another like sardines'.

Li Tim Oi's work in Macao so impressed Ronald Hall, Bishop of Hong Kong, that he decided to ordain her as a priest - the first woman to hold that position since the Church of England was founded in the 16th century. He performed the ordination on 25 January 1944 in Zhaoqing, Guangdong province, a journey of 250 kilometres from Macao through Japanese-held territory. After this historic event, she returned to Macao to continue her ministry to residents and refugees. It was only after the end of the war that conditions in the city improved.

Not everyone celebrated Li Tim Oi's landmark role as a priest, however. In 1948, the Lambeth Conference, the ruling body of the church in the UK, refused to accept a woman priest. With deep humility, she resigned and carried on her work regardless. She was not reinstated until November 1971.

After 1949, Li Tim Oi chose to stay on the Mainland. She







suffered greatly during the Cultural Revolution, however, as Red Guards seized her Bible and prayer book and sent her to work in factories. Only in 1981 was she allowed to leave and join her family in Hong Kong. In 1982, she moved to Toronto, Canada, where she later died in her sleep, aged 85, on 26 February 1992. Her five years in Macao, however, gave her an eternal place in the history of the Anglican Church.

The prolific composer

Music came to Macao in the first half of the 20th century in the form of gifted composer Xian Xinghai. The talented writer was born in a boat in Macao's harbour and his mother earned a meagre living ferrying goods from the city to Zhuhai but he overcame poverty and prejudice and went on to study music in Paris, later writing the most famous piece of Chinese music composed during the Pacific War. He lived a short but dramatic life. During his 40 years, he wrote two symphonies, a violin concerto, an opera and nearly 300 songs, including his masterpiece,

the 'Yellow River Cantata' in 1938. It became the battle hymn of China during the war with Japan and has had a lasting impact on modern Chinese music.

Xian was born on 13 June 1905 into a family of boat people. His father died when he was young, so he was taken by his mother from place to place, including Singapore, where she worked as a laundress to provide her son with an education. He moved from there to Guangzhou, studying at Lingnan University, where he developed his musical interests. He later studied in Shanghai before heading to France to study music at the famous Paris Conservatory in 1931. In 1935, he returned to China and in 1938, he moved to Yanan, where he composed the epic 'Yellow River Cantata' in just six days and nights of intense work in a cave. It came to be sung by Chinese soldiers and civilians to raise their spirits during dark hours of conflict. He later moved to Moscow and then Almaty, the then capital of the Soviet Kazakh Republic. In the spring of 1945, he caught pneumonia and later died

in a Moscow hospital on 30 October 1945, aged 40.

Today, Macao remembers Xian well with Avenida Xian Xing Hai, which runs through the Nape district, next to the city's Cultural Centre, named after the composer. There's also a statue of him at the avenue's junction with Rua de Berlim. And the Cultural Affairs Bureau is converting two houses in Rua de Francisco Xavier Pereira into a museum in his memory, plus the city's Post Office has also issued stamps in his honour. Xian's life was certainly full of suffering and difficulties - but his music and memory lives on forever.

The historical solicitor

Geoffrey Ernest Maurice de Sainte Croix was born in Macao but went on to become a solicitor in Britain, serving in Egypt during the Second World War, and then a fellow of Oxford University's New College, where he taught Greek history for 24 years. He was a distinguished historian of Classical Greece and Rome and saw history through a Marxist perspective, analysing classical society in a way that was unique among scholars of his time. He saw the exploitation of free and unfree labour by the propertied class as the motive force of history.

Sainte Croix was born on 8 February 1910. His father Ernest was an official in the Chinese Customs and his mother was the daughter of a Protestant missionary. After his father died when Sainte Croix was just four years old, the family moved back to England. He was educated at Clifton College in Bristol before leaving school at the age of 15 to become an articled clerk. He was admitted as a solicitor in 1932 and practiced until 1940. As well as being a good solicitor, he was also a talented tennis player, competing in the singles and doubles tournament at Wimbledon from 1930 to 1932. Of particular note, he once beat probably the most famous British tennis star of all time, Fred Perry. During the Second World War, he joined the Royal Air Force and was stationed in Egypt, where he expanded his knowledge of ancient languages.

After the war, Sainte Croix - who was known informally as Croicks studied ancient history at University College in London. From 1950 to 1953, he taught in London before being appointed a fellow of New College, Oxford. He was a fellow and tutor in ancient history there from 1953 to 1977, gaining a name for himself due to some highly praised publications and for his dynamic lectures that expounded themes like slavery, finance and food supply - subjects that were simply not tackled by any other ancient historian in the Oxford of his day. He also contributed to a campaign to persuade the all-male Oxford colleges to admit women. Sainte Croix continued to live in Oxford until his death on 5 February 2000.

SEVEN STARS

Other famous people who, even if just for a short while, were Macao residents

George Chinnery



One of the most celebrated English painters of all time lived and kept his studio on the Macao

Peninsula, at 8 Rua Ignacio Baptista, from September 1825 until his death on 30 May 1852. He was the only Western painter resident in South China between the early and mid-19th century.

Zheng Guanying



Zheng lived in what is now the Mandarin's House tourist attraction. He was a senior Chinese official

and businessman who wrote 'Words of Warning in a Prosperous Age', an influential late 19th century book. His works played an important part in ending Chinese imperial rule.

Sun Yat-sen



Hardly a little-known fact, the father of the Chinese Republic lived in Macao for 16 months from 1892.

He was the first Chinese person to practice Western medicine in the city but he closed his practice in September 1893 after deciding that his mission in life was to lead a revolution.

Carlos Augusto Montalto de Jesus



The author of one of the first books published on Macao's long history in English, 1902's 'Historic his life. A later edition of the book was released which drew the ire of the Portuguese but his first publication brought him global recognition.

Macao', lived in the city during

Lou Lim leoc



In the early 20th century, Lou, the first chairman of the Macao Chamber of Commerce, ran the

business empire of his father Lou Kau, who died in 1906. He managed gaming operations and branched into theatre and pawnbroking. He also set up a school and gave to Kiang Wu Hospital.

Leung Yan-ming



A pioneer of modern education in Macao, Leung was also a political activist and leader of the

anti-Japanese movement in the Second World War. He developed education for primary and secondary students over 33 years and was also an accomplished poet and talented calligrapher.

Sir Robert Ho Tung



The richest man in Hong Kong around the turn of the 20th century made investments in

Macao. In 1918, he bought Macao's Number 3 Largo St. Agostinho as a summer retreat. He later spent the Second World War there, enjoying a freedom not available across the water at the time.



Cropping up

Text Paulo Figueiredo

Angola's economy is diversifying due to falls in oil prices and production – and now its President, government and businesses at home and abroad are looking to reshape its agricultural sector due to the African country's massive untapped swathes of arable land. We discover how 'green oil' could take centre stage.

In his two-and-a-half years **⊥** since taking office as Angola's President, João Lourenço has proved to be a strong leader who doesn't mince his words. So his message towards the end of December on the massive potential the southwestern African nation has in the way of agriculture did not fall on deaf ears. The President travelled to the vast Quiminha region, about 40 kilometres from capital Luanda, and sunk his boots in the dirt of one of the many arable fields as the scorching tropical sun burned overhead. After he surveyed the land, he said: "Angola can produce a lot more than it has been producing until now." And it can. Lourenço is clearly preparing to make it happen.

Lourenço's visit to Quiminha, which is home to a much-publicised integrated agricultural and regional development project, was part of a tour of productive facilities, both agricultural and industrial, in Luanda province. It served to help highlight a vision for the development of a country that

has historically relied on both oil exports and, in spite of its immense availability of land, food imports. A country that spends an estimated US\$3 billion (MOP 24 billion) every year on food imports yet has thousands of hectares of highly productive land lying idle.

Angola can produce a lot more than it has been producing until now.

Angola is 1.247 million square kilometres in size and 575,900 square kilometres – which is not far off the size of France – of this is arable land. But only between eight and 14 per cent of this land is being exploited, according to a World Bank report a couple of years ago. However, this could all

change. As Lourenço said during his visit, Angola can produce a lot more on its fields through both agro-industry and smaller-scale family production.

Angola has an abundance of land and water, as well as diverse climatic and soil conditions excellent for producing a large variety of crops. The Quiminha project in Luanda's Icolo e Bengo municipality, which was launched in 2012, stretches over 5,000 hectares of land - including greenhouses - and has been steadily increasing its fruit and vegetable production over the past few years. Last year, it produced 35,000 tonnes of vegetables, cereals, tubers and fruit compared to 27,000 tonnes the previous year, thus increasing the agricultural supply to Luanda. It also produced 24,000 eggs on average every day last year. The purpose of the project was to reintegrate 300 families who had previously been working under difficult conditions into farming, as well as contributing





to Angola's process of economic diversification. Thirteen families have been settled in the farming zone since October 2017 and 180 were expected to move in over the coming months.

The government's partner in the Quiminha scheme is Israelborn, Amsterdam-headquartered agricultural firm Tahal. In the wake of Quiminha's progress, the group furthered its involvement in the country by signing an agreement in 2017 with government-owned land management company Gesterra - Gestão de Terras Aráveis SA for three large-scale agricultural development projects, valued at around US\$291 million (MOP 2.3 billion), in the provinces of Cabinda, Huambo and Lunda Sul. Each of the projects aims at developing over the coming months a regional agricultural centre, including new farms, irrigated and drip-irrigated cultivation areas, greenhouses, chicken hatcheries, chicken coops, logistics centres and training centres.

Today, projects like Quiminha are sprouting up in other provinces too. With Angola's economic growth contracting since 2016 due to the combined effect of drops in its oil production and sharp falls

in international oil prices, the Portuguese-speaking country's agro-industry is now more important than ever. Economic diversification and agricultural potential have long been touted by Angolan officials but there's a new sense of urgency and a desire to put the nation's food industry at the forefront - which is clear as the president conducts his visits to farmlands and agricultural projects like Quiminha. There may be many hurdles ahead but the government, foreign partners and the country's private sector seem aligned in their mission to create a more sustainable economic future in Angola by way of its massive expanse of arable land.

The must-read report

Last year, the International
Financial Corporation – or IFC,
a member of the World Bank
Group – commissioned what has
become one of the most exhaustive
studies of Angola's private sector
and its potential for economic
diversification. In the context of the
Lourenço administration's efforts
to bring in foreign investment for
agriculture and industry, 'Creating
Markets in Angola: Opportunities

The conditions are in place for an excellent agricultural sector in Angola.

for Development Through the Private Sector' has become a mustread among experts. "Agribusiness should be at the centre of Angola's economic diversification," it states.

According to the study, at present about 80 per cent of all Angolan food production comes from subsistence agriculture and small-scale farming. Smallholders - people who own or manage an agricultural holding that's smaller than a farm - represent 92 per cent of all the land under cultivation. The sector, however, remains the main source of income for 90 per cent of the 9.6 million Angolans - out of the total population of more than 32 million - living in rural areas. It also remains the main source of employment in the country - with an estimated 44.9 per cent of the total employment but accounts for only three per cent of all people with stable jobs.

Large government projects and investments, the IFC report says, have 'generally underperformed' and there are 'few successful agribusiness firms'. Poor infrastructure and lack of finance limit the ability of medium and smallholders to be more productive and participate in markets. A 'new approach', says the IFC, is needed.

With five main river basins, Angola has 80,000 hectares of irrigated land, with the largest areas in the provinces of Cuanza Sul, Bengo and Benguela. Over the years, the government has invested in medium-sized areas such as Bom Jesus and Caxito in Bengo and Matala in Huíla, which cover about 3,000 hectares each. It's also invested in much larger irrigated areas such as Capanda in Malanje province, which has the potential to span 13,500 hectares. However, most of these lands, according to the IFC report, are underutilised. The government is restructuring agricultural state-owned enterprises - principally Gesterra, the main entity managing medium and large-scale government farms and public agricultural land. Some of these state-owned enterprises are closing, however, and, according to the IFC report, the private sector, from here, is expected to take centre stage.

At a 'strange crossroads'

While the IFC's comprehensive study is generally optimistic about the private sector's opportunities in Angola for companies in the agriculture industry – among others – the report also serves as a tough reminder of the many difficulties faced by all those involved in the industry, whether big or small. For instance, all these companies and individuals may be hampered by the poor state of the country's road infrastructure which can make, say, transporting goods to market problematic. Financing is another



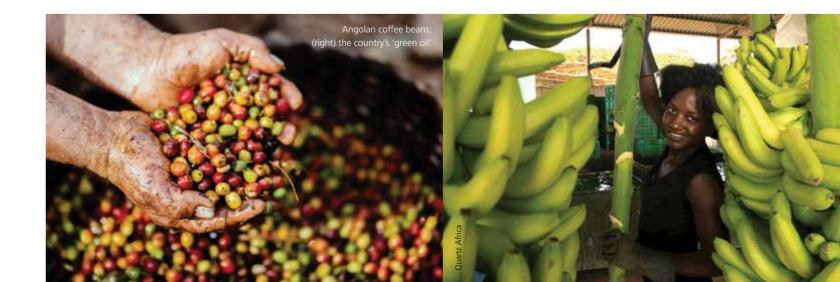
Eugénio Costa Almeida

obstacle – the agriculture sector's share of overall credit has remained low, at less than five per cent last year, and has been seen by many as a major constraint for both farmers and agribusiness enterprises.

Other problems can be even more basic, like the fact that quality seeds, fertilisers and agriculture equipment are, as the IFC report puts it, 'out of the reach of most farmers', a situation the IFC claims has 'aggravated' since the onset of the economic crisis and associated restrictions by the foreign exchange market. The report also highlights a shortage of technical and management skills in the industry, which forces commercial farms to 'incur high personnel and training costs'.

Portugal-based researcher Eugénio Costa Almeida, who is an expert on Angola and has done a lot of research on the country under the current administration, says the conditions are in place 'for an excellent agricultural sector' in the African nation. But he also tells Macao Magazine it 'is still very incipient and deficient for national needs' - meaning that its development is only just starting to happen. Livestock production actually suffered a small decrease last year, says Costa Almeida, due to persistent drought in the southern provinces of Huíla, Cunene and Cuando-Cubango.

The potential exists for cereal production, as well as coffee, according to Costa Almeida. Banana, he notes, has also been named by the Angolan government as the 'new green oil' because of its export potential. Before its independence from Portugal in 1975, Angola was a major fruit producer and was once the third largest producer of coffee beans in the world. Now, it is far behind the globe's biggest coffee producers, which include other African nations like Uganda and Ethiopia. But there have been calls in the country to boost coffee and fruit production as this won't just create jobs, increase exports and help the local economy but will also mean that less foreign currency is spent. However, Costa Almeida warns there could be 'countless





cases of complaints by small and medium-sized producers' who will be left with surplus production that cannot be marketed due to a lack of transportation and poor road infrastructure.

Today, some factories for processing agricultural products 'are beginning to appear', says Costa Almeida, both for domestic consumption or for export - but he says they have a hard time competing with lower-priced imported products. Other than government support, the sector needs new investors with new technologies, claims the researcher. "At the agribusiness level, Angola is at a strange crossroads," he says, adding that on one hand the country is keen to develop its national agriculture industry but on the other its constitution limits land ownership to the state, which could deter investors.

Chinese support

China has consistently been one of Angola's main partners in the agricultural sector. Early last year, it pledged a grant of RMB 100 million (US\$14.7 million) to the African country for a number of projects to help develop its agricultural industry under an agreement signed between the two countries in Beijing. And in September last year, the Chinese ambassador to Angola, Gong Tao, pledged to support the Angolan government in its economic diversification, mainly with the restructuring of agricultural production. For this purpose, he said, Angola 'can count on the support of the Chinese government for its rich experience alongside natural technologies to bolster productivity'.

Gong Tao spoke at the opening ceremony of the second cycle of

training for 30 Angolan technicians on potato cultivation, organised by the Chinese Ministry of Science and Technology, through the Jiangsu Jiangzhou Agricultural Science and **Technology Development Company** and the Academy of Agricultural Sciences of Heilongjiang Province. The Heilongjiang academy is the largest agricultural research institution in that Chinese region and is recognised internally and externally in the field of research, especially on corn, soybeans, rice, potatoes, seed farming, plant preservation and custom fertiliser formulation.

Chinese agricultural experts have also visited Angola for training programmes. At the end of 2018, a delegation of seven experts provided a two-week training programme for 20 Angolan technicians in Huambo, the country's third-largest city, to

help cultivate more local talents and strengthen agricultural co-operation between the two countries. The training mainly focused on crop production and livestock breeding technologies which cater to the local technicians' needs to build up their productive capabilities.

Future growth

Last summer, the Angolan government launched a tender to privatise four farms across the country. The Agro-Industrial Project of Fazenda do Longa in Cuando-Cubango province, the Camaiangala Agricultural Development Farm in Moxico province, the Cuimba Agro-Industrial Farm in Zaire province and the Sanza Pombo Agricultural Development Farm in Uíge province together cover about 43,000 hectares of land. Ana Paulo, the head of the privatisation department of the State Asset Management and Participation Institute (IGAPE), said the reference prices of these farms are valued at between US\$22 million (MOP 176 million) and US\$35 million (MOP 280 million). This privatisation project could raise around US\$110 million (MOP 881 million) for the state coffers. In November, the government announced that seven Angolan and foreign companies were found to be eligible to participate in the public tender.

In spite of the challenges, however, a handful of commercial operators have been successful. In many instances, the IFC report cautions, the success stories 'probably benefitted from favourable conditions such as access to prepared land, partnership in government ventures or leveraging commercial

success in other sectors'. With or without this kind of support, they have found markets at home - from supermarkets to street vendors - as well as abroad. Companies like Nuviagro, Agrolider, Fazenda Girassol, Turiagro and Jardins da Yoba have been particularly active in the horticulture and fruit segment, producing fruits like bananas and mangoes, as well as vegetables like potatoes and onions. Another important player is Aldeia Nova, a government joint venture that supports a community of 700 smallholders and their families. The company produces its own soy and maize for animal feed, gives it to the farmers with power, water and equipment and then buys the resulting produce, which is then processed and packaged for the local market.

Currently, the banana is the main fruit that is produced in Angola. The country is one of the biggest producers of the crop in Africa. Nova Agrolíder, the leading national producer of this fruit, reached a production of 71,000 tons in 2017 in its Bengo and Caxito farms, a 77 per cent increase over two years. Under the banana's brand name 'Angolanita',

ANGOLA: THE FACTS

- Angola is a Portuguese-speaking country in southwestern Africa.
- It covers a broad variety of landscapes, including deserts, rugged highlands and beautiful river valleys, not to mention its massive swathes of arable land.
- The capital and commercial centre is Luanda, a large port city on the northern coast that blends Portuguese-style landmarks with traditional African housing styles.
- Angola has fairly recently been ravaged by war and the related effects of landmines and malnutrition. It has often been dependent on the international community for the basics of survival.
- It is rich in natural resources like precious gems, metals and petroleum, ranking among the highest of the oil-producing countries in sub-Saharan Africa.
- It acquired its present boundaries in 1891 and in 1975 the nation became independent from Portugal.
- It is a roughly square-shaped country with a maximum width of about 800 miles, or 1,300 kilometres.

- - Apart from a few small exceptions, all Angolans speak Bantu languages of the Niger-Congo language family which dominates much of Africa.
 - Angolan poet Agostinho Neto, who
 was also the country's first president,
 described Angola in an ode he wrote
 in prison in 1956. He said the country
 was 'red with coffee, white with
 cotton, green with maize'. Soon, if
 president João Lourenço's ambitions
 are realised, it could be 'yellow with
 bananas, thriving with livestock' and
 much more.

the firm has started exporting small quantities to Portugal and Namibia - about 2,600 tons a year. According to the IFC, Nova Agrolíder, which is part of Grupo Lider, is now the largest fruit and vegetable producer in Angola, with an annual production of 200,000 tons of 50 different fruits and vegetables, as well as employing 4,500 people. They use their own truck fleet to distribute to other firms. Grupo Lider, which owns the chain store Frescos do Dia, is expanding into other agribusiness sectors, including coffee, dairy, poultry, livestock, aquaculture and frozen foods.

Another notable project is that of Fazenda Girassol, which has three farms and 800 employees and has captured investment from private equity fund Angola Capital Partners. Using its own truck fleet, the firm now supplies to supermarkets, hotels, restaurants and individual homes through online sales. It is currently expanding its range of horticulture

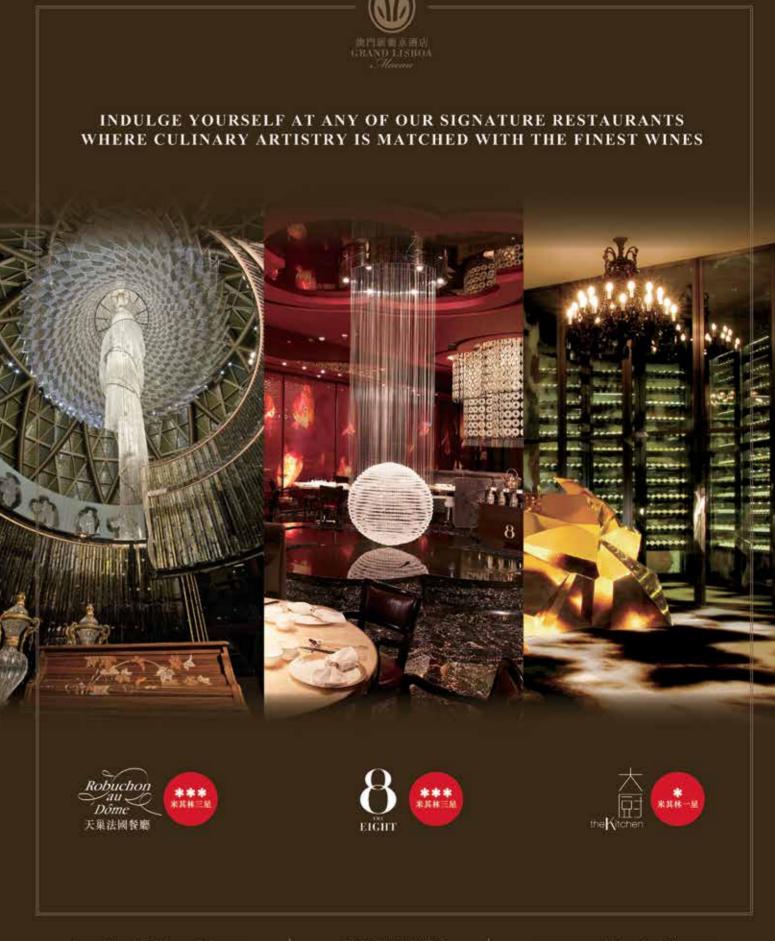
products using greenhouses and it is expected to produce maize soon. Turiagro operates farms in the provinces of Luanda, Bengo, Kwanza Norte and Kwanza Sul and distributes to major supermarkets. Nuviagro, which has Portuguese-Angolan capital behind it, operates a farm in Quibala and also has expansion projects on the horizon.

In an article published in January on the changes underway in the Angolan economy, the IFC asserted that, together with the World Bank, it is working in collaboration with the Angolan government and the country's private agro-industrial sector to strengthen the chain of agricultural supplies, promote investment in the sector and link small businesses to agricultural markets. According to the IFC's representative in Angola, Hector Gomez Ang, 'Angola has great potential to produce high-value agriculture and on a large scale'. He said: "The recent reforms have triggered the entrepreneurial spirit

of Angola, creating an exciting and fast-paced environment'. To stimulate investment in agriculture and the country in general, the IFC recommends comprehensive reforms and improved regulations, particularly in the transport, energy, information and communication technology sectors.

Angola may still be encountering many challenges but help is out there for its agricultural sector and soon the world may see massive growth as the country reaches its true farming potential. Likely inspired by these new projects sprouting up across the nation and in particular by his visit to Quiminha a few days earlier, President João Lourenço delivered a hopeful Christmas message to the Angolan people. New developments, he said, contradict 'the pessimistic vision of those who doubted that Angola is entering a new period in its history'. The new developments are there to see – time will tell how quickly they are cultivated.





Avenida de Lisboa, Macau

Zoom

The royal treatment

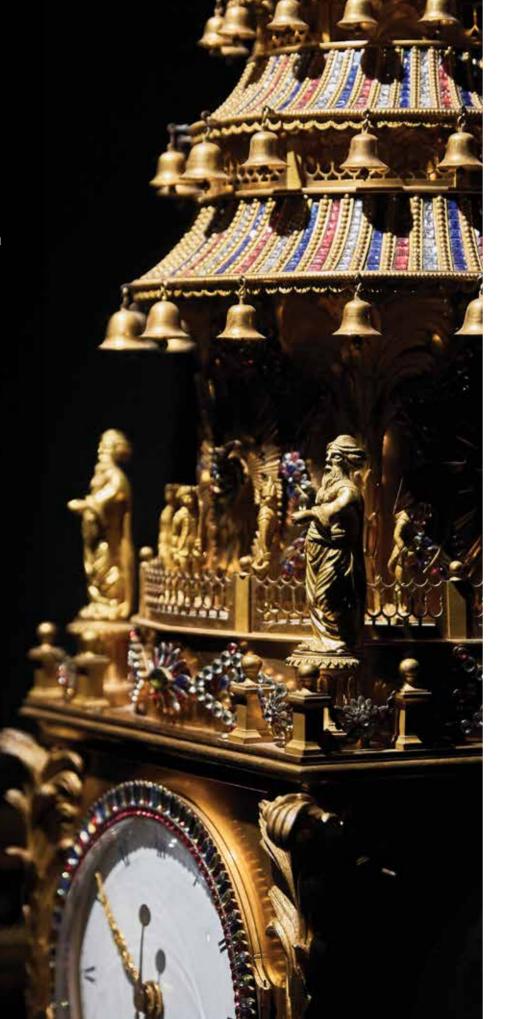
Text Rafelle Marie Allego Photos António Sanmarful

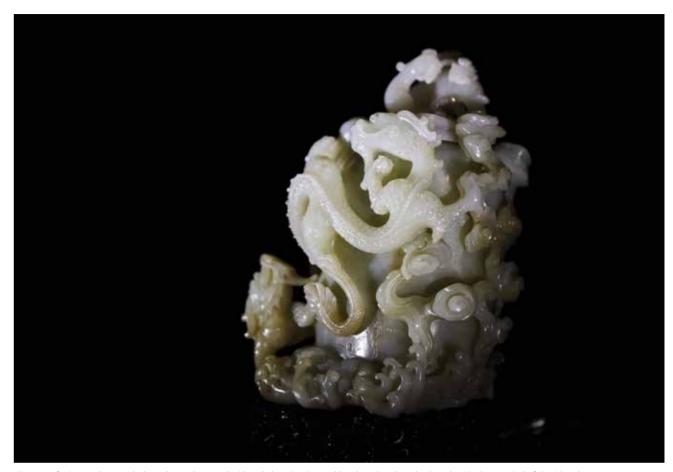
If anywhere in China is filled with treasures then it's the Palace Museum in Beijing. This national attraction housed in the Forbidden City is filled with a raft of historical treasures, many of which have been brought to the Macao Museum of Art (MAM) for a series of exhibitions that run until next month. Taking up four floors, the exhibitions showcase the court life and culture of the Forbidden City over the ages.

The exhibitions are divided into four galleries and include 'A Panorama of Rivers and Mountains 3.0' on the second floor and 'The Long Journey: The Forbidden City and Maritime Silk Road', which boasts nearly 150 cultural relics from the Ming and Qing dynasties, on the fourth floor. There's also an exhibition of cultural and creative items from the Palace Museum on the third floor, complete with an 'education area', while the first floor is filled with illustrations depicting two decades of collaboration between the Palace Museum and the MAM.

The exhibitions are open daily from 10am to 7pm and admission is free. The second floor exhibition closed on 15 March but the others are all on until 13 April. Here is our pick of some of the most beautiful and interesting items on display...

Close-up of an 18th century gilt-copper clock in the form of a five-tiered pagoda. Portuguese missionaries first introduced the Chinese to clocks.

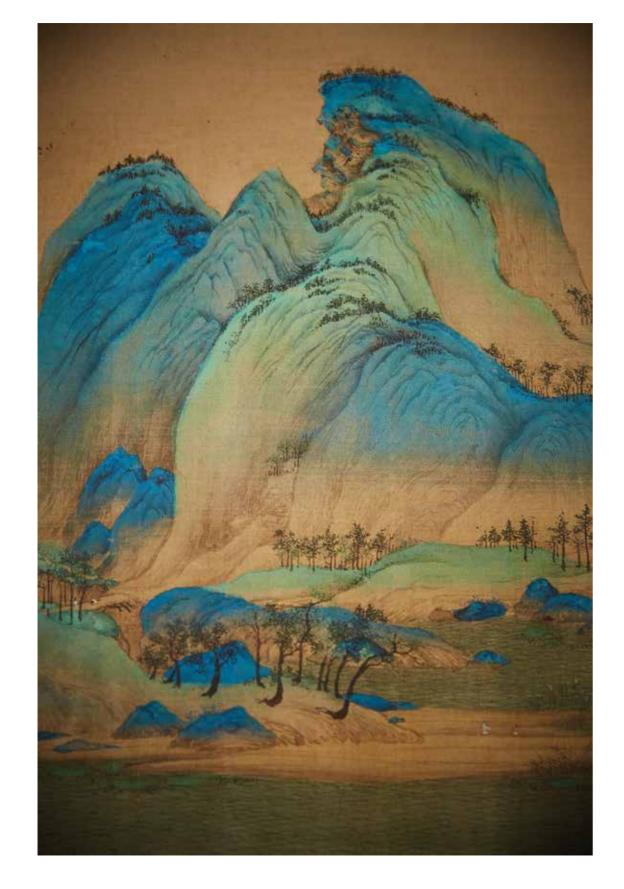




Close-up of a jasper plum trunk-shaped vase decorated with red phoenix, pine and bamboo that dates back to the Qianlong period of the Qing dynasty, between 1736 and 1795.



A selection of ceramics dating from the Ming dynasty to the Qing dynasty, with the piece in the centre dating back to the Kangxi period of the Qing dynasty, which was between 1662 and 1722.





'A Panorama of Rivers and Mountains' was created by artist Wang Ximeng in azurite blue and malachite green on a silk scroll when he was just 17 years old. This is just a section from the 1,191.5cm-long work that was made during the Song dynasty between 960 and 1279.



A close-up of a 'guangcai' vase from the late 19th century. The vase is 77.5cm high.



A painted enamel gold teapot with landscapes and figures from the Qianlong period of the Qing dynasty, between 1736 and 1795.



A 'guangcai' vase from the late 19th century which is decorated with figures, flowers, birds and the Portuguese insignia. There are Chinese and Portuguese influences at play here.



A red sandalwood bed inlaid with painted enamel from some time during the Qing dynasty. The date it was made is not known.



A gilt-bronze armillary orrery, which is a mechanical model of the solar system that illustrates the positions and motions of the planets and moons, with seven celestial bodies displayed. This is from the 18th century.



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辦公時間 OfficeHours

早上/ Morning: 09:00-13:00 (星期一至五 / Monday to Friday) 下午/ Afternoon: 14:30-17:45 (星期一至四 / Monday to Thursday)

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