

TAIWAN
ASIA'S SILICON VALLEY
by Alessandro Gandolfi

Taipei (Taiwan). A view of the Luzhou district in New Taipei. In the background is the Tamsui River.



A DIFFERENT CHINA, TAIWAN IS TODAY THE CAPITAL OF SEMICONDUCTORS

What is Taiwan if not a curious example of an alternate history? Or rather, what might have happened if Chiang Kai-shek had prevailed in China instead of Mao? How would things look had history taken a different turn? The answer might be found in this island in the South China Sea, inhabited for the most part by the Han population that speaks Mandarin Chinese but is not communist. The Marxist-Leninist doctrine never arrived here and after half a century of Japanese domination (1895-1945), the island that the Portuguese had named "Formosa" became a refuge for nationalists fleeing Mao's army. It was intended as a temporary withdrawal prior to taking back the continent but they remained until today, transforming Taiwan into a hardworking democracy (protected by the United States). In 1980, following a trip to California, a group of Taiwanese visionaries set out to create a science park on a hill in Hsinchu. The idea

was ambitious and had the backing of the Taipei government: to create Asia's own Silicon Valley. Forty years later, not only does that park still exist, but it is the heart of a planetary success: Taiwan has become the world's main centre for the production of semiconductors, essential elements for creating microchips. This strategic success story has become a particularly enticing proposition, especially for China. The island is responsible, in fact, for two thirds of the total global production of microprocessors, the genuine technological heart of the modern world. Today, everything – smartphones, computers, cars, video games, the medical sector and, above all, the arms industry – depends on semiconductors, a product that is experiencing a ten per cent increase in demand every year. Taiwan has always had a particular calling: scenting the future and investing in that direction, creating neither logos or brands and

island has carved out a key role for itself in today's society, becoming an essential node that no one can ignore. Not even the superpowers. US president Joe Biden highlighted the importance of semiconductors in "the race to win the 21st century." In fact, the competition between the United States and China – taking in protectionist legislation, industrial espionage and coast-to-coast headhunting of talent – already features here in Taiwan. A city that is futuristic and overpopulated, Taipei (Taiwan's capital) with its karaoke bars, gay clubs, tearooms and art galleries where East and West intertwine, recalls the cyberpunk Los Angeles portrayed in Blade Runner. On the other hand, Hsinchu is a city devoted to work: here the Science Park is a city within a city where - in an area of 14 square kilometres - 565 companies employ 165 thousand people, generating thirty per cent of the country's total exports.



Taipei (Taiwan), visitors to the Observation Deck, the observatory on the 89th floor of Taipei 101, a skyscraper 509.2 metres tall.



Hsinchu (Taiwan). Employees from the Wistron NeWeb Corporation (WNC) play a game of basketball during their lunch break. WNC is a company specialized in software, hardware and mechanical design and has premises in the Hsinchu Science Park, Taiwan's "Silicon Valley".



Taipei (Taiwan), tourists walk towards the prestigious National Palace Museum, home to almost 700,000 pieces of Chinese art, many of them transferred from China from 1948 onwards as Mao's army advanced.



Hsinchu (Taiwan). Actors from a theatre company prepare to perform a show in a city square. Although Hsinchu is a world centre of technology, it still retains strong links with its traditions and historical roots.



Hsinchu (Taiwan). The HiSeq Flowcell Skyfall, the 2014 chip that was the first to perform human genome sequencing in just a few hours and at a cost of 1000 dollars (previously the process took 13 years and cost 2.7 billion dollars) on display at the TSMC Museum, which has premises in the Hsinchu Science Park. TSMC – the Taiwan Semiconductor Manufacturing Company – is the world's biggest producer of semiconductors.



Hsinchu (Taiwan), on display at the Military Community Museum is a commemorative plate with a photo of Chiang Ching-kuo, son of Chiang Kai-shek and himself a president between 1978 and 1988.



Hsinchu (Taiwan). Just married, Ian Jiang and Teresa Tung have their photo taken outside the municipal offices. Ian works for CCP, a company with premises in the Hsinchu Science Park where it produces probes, connectors and network cables for the high-tech world.

Taoyuan (Taiwan), over the years, as public opinion has increasingly shifted towards considering him a brutal dictator, statues of General Chiang Kai-shek have been moved to the park near the Cihu mausoleum where he is buried.





Taipei (Taiwan), Jianguo High School. At the Taipei Resource Center for the Gifted and Talented, Raymond Lin, aged 16, poses for a picture. Raymond is one of the school's "gifted" youngsters. He has been studying bioengineering and pharmacy since he was 12 years old.



Taipei (Taiwan), soon to be married, Loren (right), a clerk, and Vicky Kuo, a primary school teacher, prepare to have their photograph taken in the Zhishan Garden.



Taipei (Taiwan), tourists walk on the stairs of the prestigious National Palace Museum, home to almost 700,000 pieces of Chinese art, many of them transferred from China from 1948 onwards as Mao's army advanced.



Taipei (Taiwan). At the Taipei Astronomical Museum a family prepare for the Cosmic Adventure exhibit: a journey through the solar system in the 25th century, by which time space tourism will probably have become a reality.

Hsinchu (Taiwan). The Baoshan II reservoir outside the city. Hsinchu's semiconductor manufacturers, especially the TSMC, have substantial water requirements and use the water from the surrounding reservoirs, even though in recent years droughts have raised various questions about the sustainability of the water supply.





Taipei (Taiwan). Students at the National Taiwan University work in the Intelligent Machinery and Mechatronic Control Lab.



Taipei (Taiwan), a woman walks along a pedestrianized street beside the Farglory Financial Center (right). In the distance is the Taipei 101 skyscraper.



Hsinchu (Taiwan). Henry Lee, aged 18, studies Economics at the National Tsing Hua University. Here he is pictured in a common room at the student accommodation on campus.



Taipei (Taiwan), two youngsters inside a model of the sun sit on its core at the Taipei Astronomical Museum.

Hsinchu (Taiwan), a man walks across a suspension bridge over the Baoshan reservoir outside the city.





Taipei (Taiwan), people eat and relax on the steps of the Shilin Cixian Temple in the heart of the Shilin night market.



Taipei (Taiwan), a wrestling match near the Expo Dome.



Hsinchu (Taiwan). A student walks by the student accommodation at the National Tsing Hua University. One of the country's most prestigious universities, the NTHU is the alma mater of three Nobel Prize laureates.



Taipei (Taiwan), near the Expo Dome, in Yuanshan Park, a child plays on a toy tank and looks at two people relaxing.



Hsinchu (Taiwan). Students have lunch at the entrance to the College of Science at the National Tsing Hua University. One of the country's most prestigious universities, the NTHU is the alma mater of three Nobel Prize laureates.

Hsinchu (Taiwan). Homes built in the 1970s near the entrance to the Hsinchu Science Park. These European style houses were built to attract students who had studied in Europe and the USA, offering them homes that would resemble the lifestyles and architecture they experienced abroad.





Taipei (Taiwan). A visitor has her photo taken at the top of a colourful, futuristic staircase at the Taipei Astronomical Museum.



Taipei (Taiwan). A young woman comments on her live stream channel from the stands of Reset the World, a huge electronic gaming fair held at Expo Dome.



Taipei (Taiwan). Electronic circuit boards with microprocessors are collected at the premises of UWin Nanotech in order to extract the gold they contain. The company has developed an innovative and clean system to extract gold from telephones, computers and other electronic devices.

parallel zero

