

CHAPTER 1

HISTORY, AESTHETICS, AND CONSERVATION

A Brief History of Neon

Discovery

Neon is a chemical element that was discovered in 1898 by two British scientists, Sir William Ramsay and Morris W. Travers, in London. It emits a glowing orange-red colour when electrified which amazed scientists when they first witnessed the brilliant red light in a neon-filled vacuum tube. Travers wrote: “The blaze of crimson light from the tube told its own story and was a sight to dwell upon and never to forget” (Travers, 1928, pp. 95–97). Thereafter, Ramsay discovered more noble gases — Krypton, Xenon, and Argon — and earned himself a Nobel Prize in Chemistry in 1904. At that time, the use of neon was limited to laboratory study and scientific exploration. It was not until Georges Claude, a French chemist and entrepreneur, applied it widely into commercial use that neon become a more common sight for non-scientists. Claude modified the older generation Moore tube, which used a mix of carbon dioxide and nitrogen as the luminous gas, with other gases and better electrodes to create neon tube lighting. He named it the Claude Tube, using his family name and forever integrating himself into neon’s history. This perfected neon tube could maintain red light with an efficiency of 10 to 15 minutes per watt, so the light was more stable and could last longer than ever before (Bright, 1949, p. 369).

The First Showcase in Europe

In December 1910, Claude set up two 39-foot-long neon installations at the Paris Motor Show (Mondial de l’Automobile) in Grand Palais. It was the first

neon light ever displayed at a public event. The fascinating lights immediately caught the eye of every guest at the show (Caba, 2004; van Dulken, 2002). Following the event, Claude's assistant, Jacques Fonseque, came to realise that the soft glitter and special features of neon lights could be applied commercially by bending the neon tubes to form letters and images. In 1912, Claude and Fonseque made and sold the world's first neon advertising sign to Palais Coiffeur, a barbershop on Boulevard Montmartre (Ribbat, 2013, p. 7). In 1919, Claude adorned the main entrance of the world-famous Paris Opera (Palais Garnier) with red and blue neon tubes. The colour scheme became known as "les couleurs Opera" (colours of the Opera) (Caba, 2004). At the time, neon lighting technology was still developing, and only limited colours were available, but this was soon to change.

The end of the 1920s saw the next major technological innovation in the field: the development of fluorescent-coated tubes (also known as phosphor-coated tubes). Neon signs using an argon-mercury gas mixture emit a good deal of ultraviolet light. When this light is absorbed by fluorescent coatings, preferably inside the tube, the coatings will glow with their own colour. Jacques Risler received a French patent for the innovation in 1926 (Bright, 1949, p. 385). Fluorescent-coated tubes have been widely studied since then and have been used to develop various technologies, such as the colour television, which have become staples in modern life. By the 1960s, 24 neon lighting colours were available, and this number has since increased to 100 (Thielen, 2005).

The Neon Boom in North America

Although Claude obtained the patent for neon light production in the United States in 1915, it was not until 1923 that the first neon sign appeared in America. Earle C. Anthony, an American businessman, bought a sign reading "Packard" from Claude for his car dealership in Los Angeles (Ribbat, 2013, p. 70), thus introducing the first neon sign to the American public. Soon after, multiple American companies cooperated with

Claude to get authorisation to produce neon signs. A neon trend instantly swept across the country. Times Square in New York City was the prime stage for showcasing the world's most famous neon signs. Most of them were designed by Douglas Leigh. One of his most notable works was the Camel billboard, in which the cigarette brand's name "Camel" and an image of a cigarette pack were formed by neon tubes (Cutler, 2007). These lights were placed next to an image of a man's face blowing smoke rings out in the air. This eye-catching billboard quickly became a landmark in Times Square and remained so for many years. By 1933, there were reportedly over 16,000 neon signs in Manhattan and Brooklyn alone. This boom in demand brought in new firms and factories, and in the 1940s, there were over 2,000 neon sign companies based in the United States (Miller & Fink, 1935).

Lighting Up Asia

According to Claude's company periodical, the first neon sign in Asia was set up at Hibiya Park in Tokyo, Japan, in 1926. The periodical also discussed neon signs being used by such businesses as car dealerships, newspapers, and printing companies (Caba, 2004; Freedman, 2011; Ribbat, 2013). In the same year, the first neon sign appeared in China. A neon sign for "Royal", the American typewriter manufacturer, was displayed at the Evans' Bookstore on Nanjing Road in Shanghai (Chan, 1997, p. 6). In 1927, the Shanghai Far East Chemistry Company (上海遠東化學製造廠) produced the first locally made neon sign. According to the website of the Office of Shanghai Chronicles (n.d.), the English word "neon" is translated as "nian-hong" (年紅), instead of the more common "ni-hong" (霓虹), because "nian-hong" sounds like "yearly bonus" in Mandarin. During the 1930s, neon signs became a popular advertising medium in Shanghai and were widely adopted by businesses to draw customers. According to news articles at that time, the three largest department stores on Nanjing Road — Sincere (先施), Sun Sun (新新), and Wing On (永安) — graced their stores with giant neon signs that could be seen as far away as Jiangwan (江灣) and Pudong (浦東) (*Tien Guang Morning News*, 14 June 1935). These two areas are situated in the

northeast and east of Shanghai, respectively. Jianwan used to be situated at the coastline but is now part of the Hongkou district. That the signs of these stores could be seen so far away highlights how bright they were.

The first foreign neon light firm ventured into China in 1928. It adopted the pronunciation of “neon” in English and was named “Lai-on Company” in Chinese (麗安公司). The firm was set up with a capital of US\$25 (equivalent to one million Chinese yuan at that time). Two years later, in 1930, the first Chinese neon firm, Dong Feng Nian Hung Lighting Company (東方年紅燈公司), was set up in Shanghai with the capital cost of 12,000 Chinese yuan. Soon after, more local Chinese neon firms were established, including Tong Ming (通明), Hua Da (華達), and Fu Lai Sheng (福來勝) (*Tien Guang Morning News*, 14 June 1935). Local neon light manufacturers were also set up by Japanese companies, including Kitagawa Japan (日本北川) and Japan-China Electric (日華電氣), as well as joint companies between Japan and China, including Xin Guang Neon Manufacturer (新光霓虹電氣廠) and Zi Guang Electric Manufacturer (紫光電氣製造廠). The industry continued to boom throughout the 1930s, and demand for neon signs rapidly increased in China. To cope with this, some foreign companies would even rent out neon signs to local shops on a monthly basis.

Although neon light production and use were on the rise in Asia, the Pacific War drastically changed the landscape. When the Japanese occupied Shanghai, light control measures were imposed and neon lights were banned, resulting in a massive closure of neon light factories. When the war ended, the factories gradually resumed business and the industry continued to grow. In 1947, there were a total of 32 neon light factories in Shanghai.

The Neon Glitter of Hong Kong

As for the neon history of Hong Kong, the first neon sign appeared in as early as 1929, according to local English newspapers. A news article from that time indicates that neon lights had been illuminating the streets around

the world for 14 years and that they had finally reached Hong Kong (*Hong Kong Telegraph*, 16 December 1929). The article also featured a thorough introduction to neon lights, including details about the substance, materials, production, colours, usage, etc. Neon lighting was described as an “art of illumination in its most beautiful and modern form, the luminous tubes being bent into letters or characters which compel attraction”. Regarding the local laws and regulations, the Advertisement Regulation Ordinance, No. 19 (published in 1912) required companies to fulfil certain criteria when they set up outdoor advertisements. Later, in 1933, official regulations about neon signs were established to set out additional requirements and obligations (*Hong Kong Government Gazette*, 1933).

Lee Wah Neonlight Co. (利華光管公司) was one of the earliest Chinese neon manufacturers in Hong Kong. Its printed advertisement in 1947 described the company as an old label with more than 10 years of experience in neon light production, meaning it was set up sometime in the 1930s. In a 1947 newspaper advertisement, the company mentioned neon signs being a new invention that was growing in popularity in the Far East. They claimed to be the sole dealer in Hong Kong for the raw materials (e.g., powder-coated neon tubes) imported from the United States for neon sign manufacturing (*Kung Sheung Daily News*, 23 February 1947).

Claude Neon Lights Fed., Inc., USA, was by then a well-established neon firm with branches all over the world including Shanghai, China. Its presence in Shanghai foreshadowed the establishment of a Hong Kong branch in 1932, which would speed up the manufacturing process and potentially cope with the increasing local demand for neon signs. Indeed, before the

“NEON” LIGHT.

AN EXPLANATION OF ITS NATURE.

An invention new to China, but one which has been attractively illuminating the busiest streets of the leading cities of the world for the last 14 years, has now reached Hongkong. It is known as “Neon”—a rare constituent of the air discovered decades ago, but now confined under glass in partial vacuum. A spectra of bright orange colour is brought to life by an electric discharge in vacua between two electrodes. Then we have Helium, a yellow gas, and Argonne, a purple, each named after the discoverers. These, with other gases, form a notable group which have great commercial use.

Neon is the most effective and dignified illuminant known, very distinctive and peculiarly attractive. Described as a living flame, and yet fireproof, and cool after thousands of hours’ burning. It has come to be the art of illumination in its most beautiful and modern form, the luminous tubes being bent into letters or characters which compel attention.

Its light penetration is the greatest known, being the only light which remains visible through fog. It is employed on aeroplanes’ routes and aerodromes in many parts of Europe and the United States, and is used for lighthouse beacons and ship identifiers on vessels plying the English Channel during dense fogs. Landing fields for London, Paris and other Continental cities, New York and San Francisco have adopted it, and Canton is now looking to it. There are many other instances which could be quoted where “Neon” has proved its great superiority.

One of the peculiarities of “Neon” is its remarkable brilliancy in broad sunlight, and yet it can be operated for from one-fifth to one-tenth of the cost of ordinary high wattage lamps, giving ten times the illuminating power.

Electrodes are inserted into each end of the tube of the glass forms or lettering. Chemists exhaust the impurities and air from the tubes first, and then introduce the gas and seal the tube under heat and pressure. Much technical apparatus is required for this work. There are but two types of electrodes, the internal and the external, and we understand that only two Corporations have patents to operate, these, one handling the external, and one the internal.

There are many other interesting details of this invention, and those desiring further information should make a point of communicating with the Neon Electrical Corporation of Asia, David House, Hongkong.

A news article on neon published in the *Hong Kong Telegraph* on 16 December 1929.



The manufacturing industry started to boom in the 1950s. The Hong Kong Brands & Products Expo was held annually to promote well-loved Hong Kong brands and products, like Pak Fah Yeow and Crocodile Garments. As seen in this photo from the 15th annual Expo in Tsim Sha Tsui in 1967, the venue was a blaze of lights and crowded with people.

local Hong Kong branch was established, the neon signs ordered by Hong Kong businesses were produced by the company's Shanghai factory via an agent. A total of 400 experienced neon makers were reported to be working in the Shanghai branch, and all production materials were imported from Europe or the United States (*Hong Kong Daily Press*, 2 September 1932).

In the 1950s, Hong Kong was heading into a period of rapid economic growth and industrial development. This growth spurt in the marketing and advertising industries led to increased demand for neon signs, thus many neon factories emerged. In the 1960s, manufacturing and service industries thrived. The demand for neon signs jumped dramatically, especially from businesses such as Chinese restaurants, bars, nightclubs, department stores, manufacturers of electronics and home appliances, cigarette companies, and watch manufacturers. Neon signs in Hong Kong were described as “artistic works” by some media for the artistic value manifested in their colours and patterns. The artistic designs attracted foreign companies to order neon signs from Hong Kong firms, and locally designed and produced neon signs were exported to other Southeast Asian countries and Africa (*Overseas Chinese Daily News*, 2 September 1966).

Any discussion of Hong Kong's neon industry must mention Dr Tam Wah-ching (譚華正博士), a pivotal figure in exporting Hong Kong's unique neon signs. He established the Nam Wah Neonlight & Electrical Manufactory Ltd (南華霓虹燈電器廠有限公司) in the 1950s, and he also explored business opportunities in Japan and Southeast Asia as early as the 1960s. Tam's business trip to Tokyo and Osaka was featured in an article in the *Overseas Chinese Daily News* on 5 June 1965. The following year another news article in the periodical reported another of Tam's business trips to Japan amid the trend of motion light installation there. It was reported that Tam stayed for a week to exchange knowledge with Japanese experts about neon technologies and craftsmanship. Tam also extended his connections to Bangkok, Singapore, and Malaysia, where he discussed the possibility of business expansion with the senior management of local neon companies, according to the paper.

While all these signs indicate that Hong Kong's neon industry was booming, things were not always easy for producers or owners of the neon lights. For instance, because of Hong Kong's geographical location, the coastal port

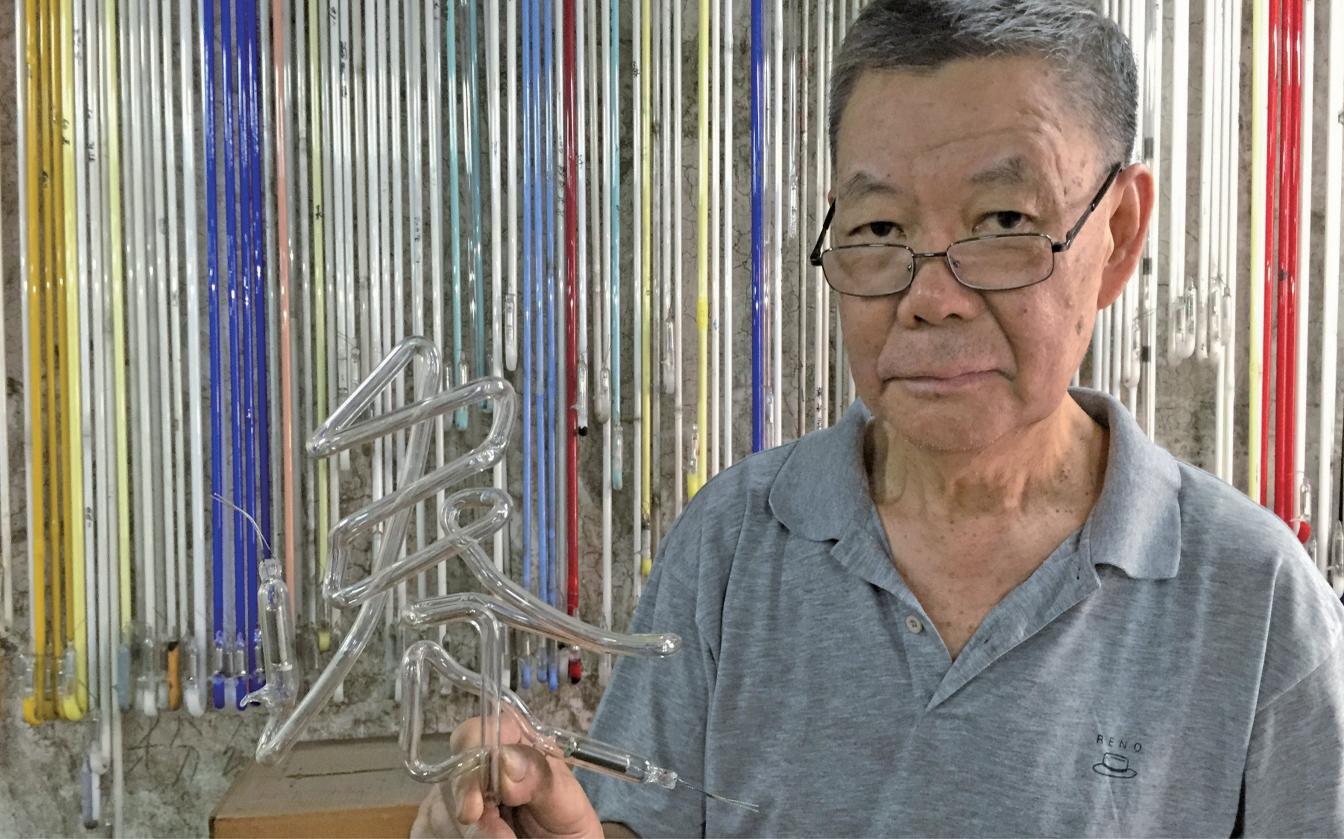


Hung Kee Seafood Restaurant in Sai Kung used a motion neon signboard for many years. It featured the shape of a fish with twinkling lights at the head and tail to create motion, which was very creative and eye-catching (left). The shop later replaced it with an LED signboard (above) and the visual impact has decreased.

is at constant risk for typhoons. In the 1960s, typhoons Wanda (1962), Ruby (1964), and Sally (1964) swept through Hong Kong, the first of which resulted in the most damage. Outdoor neon signs were destroyed by the strong winds, posing a danger to public safety because damaged cables could cause fire and shaky signs could fall. Neon makers and scaffolding workers were particularly busy after typhoons as repair work was required for the damaged signs. It was said that their hourly rate would soar to HK\$90 to HK\$100 per day, an exorbitant price at that time. However, even given the high rate, they still received many job orders (*Overseas Chinese Daily News*, 12 September 1964). Neon firms would also hire extra workers at a higher wage rate to cope with the large number of job orders. This was how Lau Wan (劉穩), a neon maker who went on to work in the industry for 50 years, started his career at the age of 13. In an interview with Nam Wah Neonlight & Electrical Manufactory Ltd in July 2016, he stated:

Business people hated typhoons because their shops would be damaged and business affected. But for neon makers, we were quite happy because typhoons meant more jobs. Many shop owners requested repair or change of neon signs, bringing more income for neon factories.

The severe damage caused by typhoons was a great concern to the Hong Kong government. In 1939, the Hong Kong colonial government introduced a new regulation regarding outdoor advertisements. This regulation states that when a typhoon signal No. 5 (equivalent to the No. 8 Northwest signal nowadays) is hoisted, business shops are required to cut off the electrical supply to signboards until the signal is cancelled (*Hong Kong Government Gazette*, 1939). However, some business owners did not always comply with the requirement and were fined. For example, on 22 October 1953, when the Hong Kong Observatory hoisted a typhoon signal No. 9, the Zenith Theatre in Sham Shui Po did not turn off its neon sign and was later charged by the authorities and fined HK\$50 (*Ta Kung Pao*, 22 October 1953).



The neon industry not only had to withstand setbacks due to natural environmental factors, but it also had to contend with social and political events. In the early 1970s, for instance, the world was hit by the oil crisis, and countries had to conjure up different measures to cope with power shortages. The neon signs in Ginza, the commercial area of Tokyo, Japan, were turned off temporarily to save energy (*Ta Kung Pao*, 10 November 1973). Macau, Hong Kong's sister city, also implemented restrictions on neon illumination to minimise electricity usage. Business owners were advised to limit their signs' illumination to four hours from 6 p.m. to 10 p.m. Those who failed to comply would be subject to fines (*Ta Kung Pao*, 8 December 1973). During the blackouts, shops, restaurants, and cinemas turned off their neon signs after 11 p.m. The streets were dim, people went home early, and businesses were affected (*Ta Kung Pao*, 10 December 1973). In fact, without neon illumination, streets became darker, and more robberies occurred — the police had to increase foot

Neon master Lau Wan, who sadly passed away in 2017.

patrols to prevent crimes (*Kung Sheung Daily News*, 10 December 1973). According to a news article in the *Overseas Chinese Daily News* published in 1973, there were a total of 18,000 neon signs on the streets of Hong Kong, consuming up to one-third of the total electricity of the city. Some business owners reacted promptly to the colonial government's blackout regulations. For example, National (now Panasonic), a Japanese electronics brand, turned off its giant neon sign on Nathan Road, the largest one in the Far East, for two weeks (*Kung Sheung Evening News*, 3 December 1973). As the oil crisis eased, the economy gradually revived, and the number of neon signs increased rapidly. In 1975, there were a total of 80,000 neon signs in Hong Kong, of which 26,000 were on Hong Kong Island and 54,000 were in Kowloon (*Overseas Chinese Daily News*, 22 February 1975).

Into the 1980s, the local economy and infrastructure developed rapidly, and people's lives were greatly improved. Hong Kong became an international financial centre, playing a significant role on the international stage. Japanese corporations and many foreign companies established branches in Hong Kong to enhance their global image as well as to explore overseas markets. For instance, the Japanese watch corporation, Citizen Watch, set up a giant neon sign on the rooftop of Elizabeth House in Causeway Bay in 1982. The neon tubes used were said to be three miles long (*Overseas Chinese Daily News*, 31 October 1982). Another Japanese electronics company, NEC, also installed a giant neon sign on the top floor of the 50-storey Far East Finance Centre in 1991. The executive director said that the 32-foot-tall neon sign represented the company's belief in Hong Kong and its investment in the city's growth (*Overseas Chinese Daily News*, 3 June 1991). During the 1980s, hanging giant signs along the seashore of Victoria Harbour was not only done to establish a company's image but was also considered a pragmatic action to display confidence in Hong Kong's future.

Considering this boom in neon across the city, it was a shame that the industry started to decline after 2000. When asked about the reason underlying this downward trend, Lau Wan, the neon maker mentioned