Passing It On

An Old "Friend"

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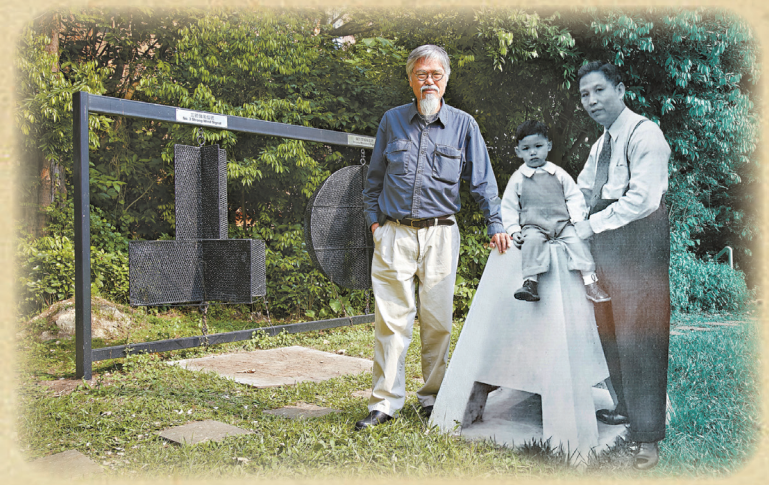
When I was young at Primary 3, my father retired from the Observatory and we moved from Hillwood Road to a flat in Chatham Building of the Hong Kong Chinese Civil Servants' Association in Hung Hom. In our new home, my father had kept his steel desk and placed it by the window. On the wall next to the desk, there was a square object measuring approximately 6 inches by 6 inches, made up of a wooden frame and two meters. I knew the rectangular meter on the right. People called it, in Cantonese, a "meter showing summer and winter", but its proper name was "thermometer". On either side of a very thin glass tube about four inches long, there were scales marked in degree Celsius and Fahrenheit. At that time, the British system was still in use in Hong Kong and the Observatory reported temperatures in Fahrenheit.



In the early 1950s, Lau Pak-wa (right), the father of Lau Tin-chi, worked in the Hong Kong Observatory. This photograph shows him with the young Lau Tin-chi sitting on a stone pier at Hong Kong's first survey station. Today, Lau Tin-chi (left) revisits the place, and he says the giant stone pier has shrunk. (Photo courtesy of Apple Daily)

To the left of the thermometer was a larger meter with three "pointers" and some English words on it. Given the fact that I was in Primary 3 and "a man and a pen" pretty much summarised my English proficiency, I had no idea what this meter did.

My father cherished this small piece of instrument that he had hung on the wall. I could not reach the bottom part of it even on tip toe, let alone mess with it. On a typical day, my father would not pay much attention to the instrument, but he would look at it closely during the typhoon season.

I realised that the pointers did not move like the hands of a clock. Normally the pointers stayed quiet, but when a "typhoon is coming", the pointer on the left would move downwards.

Before the arrival of the typhoon, my father would be busy looking at this small instrument. He would adjust the small silver pointer and observe how the other one moved. A few hours later, if the other pointer moved further downwards, he would announce with absolute certainly that, "the typhoon will hit!" As a kid, I did not understand all the fuss about typhoons. Although I would get an extra day off from school, I would be stuck at home and it was rather boring.

As I grew older, I learnt that the instrument was a barometer. Not requiring any batteries or other power sources, the "mechanics" inside senses the atmospheric pressure and causes the pointers to move. For details of the principle, you need to ask a scientific officer. After my father passed away, I had a good look at this "old friend" that had been in our family for decades. It was given to my father by the then Observatory's Director Mr Heywood and his wife. The names of the givers and receiver, along with the date of presentation, were inscribed on a small plate under the wooden frame. Our "old friend" had served our family since my father's retirement up till his passing, but after I became its owner, it was treated as an ornament on my desk because I did not know how to use it. Therefore, when I met Mr Shun, the current Director, and Ms Song, Senior Scientific Officer, and learned from them that there was a History Room in the Observatory, I offered to send this "old friend" that had been with our family for more than six decades to a place where its existence would be more meaningful. When members of the public visit the History Room, hopefully our "old friend" can show them what a home barometer in the past looks like.

Measuring Atmospheric Pressure

The figure on the right shows the operating principle of a mercury barometer. The height of the mercury column AB changes with the weather. On a cloudy or rainy day, or when there is a typhoon, the mercury column is shorter, indicating low atmospheric pressure. On the other hand, it is taller on a sunny day, reflecting high atmospheric pressure. This allows us to work out the atmospheric pressure by measuring the height of AB.