The Titan on the Sea -Keelung Harbor Building

Harbor Building nowadays

Arranged by Keelung Customs, Customs Administration, Ministry of Finance
Revised by Chung-Hua Lee

Table of Contents

A mailbox that has been used since Japan's reign

Harbor Building during Japan's reign

I. The History of Keelung Harbor Building

During Japanese rule, the expansion of Keelung Harbor, the nearest port to Japan, was planned to strengthen the connection between Japan and Taiwan as well as to respond to rising trade. Along with the construction of Keelung Harbor, urban planning is expected to refine the cityscape. Moreover, the completion of the Western Trunk Line, which starts from Keelung, in 1928 (Showa Year 3), had introduced numerous laborers elsewhere, triggering developments of related industries.

To respond to the needs of the harbor business, the Department of Transportation of the Government-General planned the construction of the Keelung Harbor Joint Building (now known as the Keelung Harbor Building). Suzuoki Ryoichi, the building's designer and chief of construction, was recommended by Ide Kaoru, Chief of Construction and Maintenance Section, and Kuriyama Syunichi, professor of Architecture Department, Nagoya Higher Technical School. The main goal of the project is to incorporate twelve public offices from the nearby harbor into the Harbor Building.

Today's Harbor Building Entrance

Since it is the first official task Suzuoki Ryoichi had taken during his career in the Department of Transportation; thus, he valued the project gravely and established a higher construction standard. Consequently, few constructors could afford the cost, making the construction bid difficult. In the end,Suzuki Ryoichi had to take on the responsibility of the construction and leaded his team to carry out tasks such as design, supervision, construction, material management, and estimation. The building

was built between November 1930 (Showa 5) and December 1934 (Showa 9). At the time, the structure was a significant landmark in Keelung Harbor.

Due to the needs of businesses following Taiwan's restoration in 1945 (34th year of the Republic of China), it is necessary to add one floor to the main building by the Harbor Office. The main building is now a five-floor structure, while the affiliated building is a three-story structure. The Keelung Harbor Building now houses offices for related departments such as the Maritime Port Bureau, Taiwan International Ports Corporation (TIPC), and Keelung Customs.

II. Features of the Building

To make people's access to administrative agencies much easier, it is necessary to house 12 different administrative agencies in the same building. In terms of space setting, the architect Suzuoki Ryoichi believes that the arranged buildings do not achieve this goal. He created an innovative design by dividing the building into two sections. The main structure consists of a basement and four floors above ground (partly 5-floor); furthermore, the annex building with three-floor above ground.

Regarding the fact that the Harbor Building is close to Keelung Port, Keelung's mountainous and rainy conditions, and the fact that storms are usually higher than sea level, the architect has made special measures as follows.The architect designed dry ovens and drainage facilities to prevent the building under the threat of heavy rain.

Air vents beneath the counter in the Harbor Building's lobby. On each floor, the architect installed special drains, as regards heavy rain flows into the sewers, which could drain into the sea.

Air vents beneath the counter in the Harbor Building's lobby

In terms of the basement settings, it was built with electric pumps to drain rainwater outside the building. To deal with emergencies, the basement was designed with separate generators. When the electrical equipment in the basement fails, an independent generator serves as a backup power source.

Since the Harbor building was built on alluvial rock formations and that the building infrastructure could be shaky. In respect of the foundation of the building, heavy hammers were pounded repeatedly during the construction process to secure the foundation so that the architecture embedded in rock plates and reinforced concrete was applied to strengthen its stability.

In aspects of constructions, the primary system of Harbor Building is based on a cross beam structure that has fire prevention and earthquake-resistant features. Different floors in the Harbor Building are earthquake resistant. The Harbor Building's walls, roof layers, and each floor are composed of reinforced concrete.

Waterways on the outskirts of the basement allow water to flow quickly out of the Harbor building. The design not only serves as a drainage system but also serves as semi-basement lighting and ventilation. Each column of the flat ceiling is designed in a circular shape which makes it easy to install after scaffolding and makes tents convenient to use.

In terms of ventilation and air exchange, the top of the lobby on the main building's first floor is equipped with an inhalation hole that connects with the patio. Through a blower motor and a windpipe, it can discharge exhaust from the fifth-floor roof.

The spiral staircase on the fifth floor of the Harbor Building

On the lifts aspect, the primary and another minor entrances and exits of the main building are equipped with elevator equipment. It demonstrates that the Harbor Building has joined the ranks of modernization and tall buildings. However, the original facilities are outdated and replaced with novel elevators.

Regarding sanitation supplies, flushing toilets were installed in the Harbor building at the time. The sewage is directed into the water purification tank to purify and sterilize, then discharged into the sewer to conform to environmental sanitation.

In respect of firefighting apparatus, there is electric three-segment turbo pumping in the basement of the Harbor Building. The equipment linked to three-inch fire hoses carries water to two fire hydrants on each floor. In addition, two firefighting water vents were installed on the building's exterior walls.

Beam and Column System of the Harbor Building

The Harbor Building's first-floor long corridor: now the Cultural Art Gallery

Regarding moisture-repellent treatment, Harbor Building may be vulnerable to moisture due to its proximity to a seaport and its reinforced concrete structure. Since the entire building was composed of reinforced concrete, there will inevitably be a hollow part due to negligence during the construction process. These problems must be supplemented with appropriate materials. Tiles or waterproof coatings can resist external moisture through reinforced concrete walls into the interior. It is particular to consider the issue of anti-moisture for buildings adjacent to ports.

After the ravages of the Second World War, the bombing of the US military, severe earthquakes, and serious floods, the architecture was still standing. In terms of the concept and design of this building, it is not inferior to contemporary architecture. It integrates the concepts of environmental protection and fire protection. The designer's vision is admirable.

III. Architecture Style and Decoration

As for architecture style, unnecessary external ornaments were simplified, and corners are designed curvedly to represent the freedom and smoothness of the building. Consecutive open windows and horizontal laces as well demonstrate a fresh architectural fashion. Facades are mainly constituted of fabric-vein tiles, while middle parts are made up of granites. The foyer is polished with marbles and ceramic tiles, while other parts are with artificial stone.

The round window of Harbor Building

Ceilings around of VIP room, conference room, dining hall, Customs Director room, Harbor Construction chief room, etc., are ornamented with moldings, gypsum sculptures as well as paints, and wallpaper, exerting a flavor of Art Nouveau. Most of the rooms, however, have been transformed into offices and only a few rooms remain their original feature.

Windows were designed vertical sliding with the upper side providing ventilation; nowadays they are replaced with aluminum horizontal casement windows, while some of them are made of cast iron. Stairway corners are designed curvedly while stairwells are embedded with castings; the geometric curves represent styles of 'Art Nouveau' and 'Art Decroatifs.' Copper ornaments are installed everywhere in the building, and timbers for internal decoration are varnished, while red cypress and Chinese fir woods are introduced in external decoration.

The octangular window exudes a rich humanistic atmosphere

IV. Eclectic modern style

Since the Harbor Building was composed of reinforced concrete, it could naturally express the surface texture of its concrete, but the designer chose not to do so. Instead, the facade of the building was replaced with attached facing bricks to show the surface texture of bricks. Such techniques had used a lot in reinforced concrete areas at the time. There is a saying that this may be because the people and officials of that time could not accept that there was no surface material attached. Regardless of

A corner of the stairs of the Harbor Building

the actual situation, the designer's subsequent works would more or less retain this style.

Inner atrium of the Harbor Building

The Harbor Building was one of the modern architectural representatives of the Japanese in the late period of Taiwan governance, integrating local needs and conforming to world architectural trends at that time; therefore, it became the standard for subsequent reinforced concrete buildings. The Harbor Building became a breakthrough in the traditional construction at that period. According to a researcher, Mr. Li, the graduate institute
of architecture of Chung Yuan Christian University, the reason why
the Harbor Building still in used nowadays can be categorized into
four aspects:

Photo 1:Harbor Building is located at the metropolis Centre.

1. The modernity of science and technology to architecture
Modern architecture, different from traditional craftsmanship and mentorship, is built by collective and mechanized construction approaches. The development of science and technology has a significant impact on people’s daily lives. It is the era of social liberation and progress.

Photo 2: Harbor Building is located at the metropolis Centre.

2. Reasonableness of material expression and architectural construction
The consistent between the interior and the exterior of a building is placed great emphasis in modern architecture, which is, in contrast, to emphasize the material expression and ignore natural beauty as shown in historical buildings. This idea is similar to the so-called "Form From Function" proposed by Louis Sullivan, an American "Chicago School" architect. He emphasizes the complementary of structural methods and materials, showing the amusement and safety of the building under appropriate conditions.

3. Practical orientation of non-art architecture
The external performance and symbolic issues cannot be the only focal points of contemporary architecture as the architecture, after all, is to be used by people. After the industrial revolution in the eighteenth century, many new machines and vehicles were invented. In response to practical needs, the architecture must be designed on a pragmatic basis. Therefore, architecture is not art. It should be tailored to people’s needs in many aspects, such as the ways of living, culture, function, technology, and beauty. The value of architecture lies primarily in if it meets people's needs, followed by the amusement and

aesthetic feeling of the building.

4. Regionally of life function and environment

The main factors in building construction considered by architects include the region's socio-cultural characteristics, economic conditions, and climate. Taiwan is a subtropical island with a hot and rainy climate, which affects the selection of material. In addition, whether it is a public or private building, Suzuoki Ryoichi would give priority to the life function. The architecture is designed according to practical needs, rather than focusing on formal symmetrical configuration.

V.Siblings of Harbor Building

During the 22 years in Taiwan, Suzuoki Ryoichi had designed many constructions. The construction projects he participated in include urban planning, seaports, aviation, telecommunications, electricity, etc. Below are those which are still preserved and used:

-1929 (Showa 4) Taipei Co-Prosperity Association Shopping Street (now: only Taipei Beifengpu Tea House remains)

-1935 (Showa 10) Taipei Telephone Exchange Office (now: Chunghwa Telecom Northern Taiwan Business Group)

-1938 (Showa 13) Chiayi Post Office (now: Chiayi Post Office)

-1938 (Showa 13) Chiayi Telephone Exchange Office(now: Chunghwa Telecom Chiayi Business Office)

-1940 (Showa 15) Minhsiung Broadcasting Bureau (now: Radio Taiwan International Minhsiung Substation)

-1940 (Showa 15) Minhsiung Broadcasting Bureau Guesthouse (now: affiliated to Radio Taiwan International Minhsiung Substation)

-1944 (Showa 19) Tianleng Power Station (now: Fengyuan 2nd Power Station)

The buildings have been extended or modified due to time, function use, business needs, etc., and are somewhat different from the original ones.

In principle, the structures are kept a lot in their original version. If having the opportunity to visit the buildings, you may find them similar in style.