

## Surveying And Mapping of the Richardson Hall in Shanghai No.3 Girls' High School

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**Keywords:** Campus architecture, Hudec, The richardson hall, Gothic style, stained glass window

**Abstract:** The McTyeire School, namely the Shanghai No.3 Girls' High School today, is one of the representative works of Hungarian architect Hudec in Shanghai. It has retro decorative style with attention to details. The Richardson Hall on the campus has obvious Gothic architectural features. This paper surveys and analyzes the Richardson Hall in Shanghai No.3 Girls' High School. The large-area Gothic glass windows are the most prominent feature of the building, creating the noble atmosphere and stable temperament of the hall and the campus as a whole.

### 1. Introduction

Shanghai has multiple architectural features; the old and new buildings co-exist; Chinese and Western elements are blended. Among them, the greatest charm lies in the fact that historical buildings do not fade away; they accompany people's lives for a long time. Those excellent old buildings in campus are typical examples. They came into being with the spreading of Western learning, and walked through the flames of war. Today they still enjoy our respect, since they bring unique humanistic spirit to western schools in Shanghai.[1] Examples in colleges and universities include the Huaishi Hall (now the Taofen building) of St. John's University in East China University of Political Science and Law, the Xianghui Hall of Fudan University, the Siqun Hall and Qunxian Hall of the Great China University in the East China Normal University, the Lvwa Building of Shanghai University of Sport, the Airplane Building of the Beiyang Military Medical School (the Second Military Medical University today), the Expert Building of the former Shanghai Jewish Club of Shanghai Conservatory of Music, and the Xiong Foxi Tower of Shanghai Theatre Academy.[2] Some of these buildings have western styles, while others combine Chinese and Western architectural features, with unique Chinese courtyard style, classical Roman style, classical Chinese style of painted beams and columns, as well as German and Northern European styles.

### 2. Shanghai No.3 Girls' High School and Hudec

Compared with university campus which is open to the public, a number of excellent old buildings with western style are hidden in the campus of middle schools. In addition to students, people outside the school can only see a corner of it at the school gate. Examples include the Second Building of the Shixi Junior Middle School with garden style, the old teaching building of Guangming High School in French style, the Chongsi Building of XuHui High School combined with French Renaissance and Spanish style, and the Richardson Hall of No.3 Girls' High School with Gothic style. Different from university campus which is tolerant to diversity, in middle school, the environment of the whole campus can be determined by the main building. Among these old campus buildings, we surveyed the Richardson Hall in Shanghai No.3 Girls' High School. Not only because it is an excellent historical building with few architectural materials, but also because the girls' high school has a special position in the modern history of Shanghai. The Gothic style of Richardson Hall reveals the arrogant noble character and boudoir temperament of the whole school. Another important reason is the designer of the building, Laszlo Hudec, who has a close relationship with Shanghai and Shanghai Architecture. [3]

Shanghai No.3 Girls' High School is a famous women's school in modern Shanghai. MC Tyerie School, the English name of the school, is to commemorate the leader of the Southern Church of the United States, who provided significant funding for the establishment of the school. The school was founded in 1890; the initiator was Lezhi Lin. The founder was also the first president, Laura Haygood, a female missionary of the Southern Women's Council of the United States. The school was located at the intersection of Hankou Road and Tibet Road. In March 1892, the school officially opened; all students came from Christian families. In 1900, Haygood died of illness in Shanghai, and Helen Richardson became the president. In 1912, a special class was opened to married women. In 1917, the school moved to the new site of Edinburgh Road. The first six principals were all Americans. In 1930, the school registered in the national government and renamed as the Private Zhongxi Women's Middle School. Xizhen Yang, a Chinese, served as the President. Since 1936, Zheng Xue has been the president. In 1952, it was taken over by the people's government and merged with Santa Maria Girls' Middle School to become the Third Girls' High School in Shanghai. The Richardson Hall in campus is named by Helen Richardson, the headmaster of the school since 1900.

Laszlo. Hudec (1893-1958) is a Hungarian architect. He went to Shanghai in exile in 1918, set up an architectural design office in Shanghai in 1925, and left Shanghai in 1947. From 1918 to 1938, Hudec left dozens of architectural works in Shanghai, including hotels, cinemas, banks, churches, schools, apartments, villas, hospitals and so on. Many of them have become landmark buildings and have been listed as excellent building protection units. Examples include the Park Hotel, the Daguang Cinema, the Muen Church, Residence of Tongwen Wu, The Paramount, General Association of the Citigroup, International Savings Society, Guangxue Building, McTyeire School, Dahua Hotel and so on. [4]

Hudec was a very influential architect in Shanghai in the 1920s and 1930s. He is also the architect who has retained most personal works. In the era when classicism prevailed, he clearly became the avant-garde of modern architecture.[5] The style of his works in Shanghai can be divided into two stages: the retro style and detail oriented decorative style, such as the American General Association and the Muen Church, and the simple and fashionable modernist style, such as the Daguang Cinema and the Park Hotel. The design of girls' school belongs to the former style.

Today's the No.3 Girls' High School still has “western style“. From the main door you can only see the bush, which blocks everything on the campus. Passing the bush, the campus became open. Surrounded by the enclosed architecture, the centre of the campus is the lawn surrounded by woods. These noisy outdoor activities are well isolated, the teaching building is still quiet. With white bricks and red tiles, the buildings have white lace on eaves. The overall style is unified. The leading building is the Richardson Hall of Gothic auditorium with huge, colourful glass windows.[6]

### 3. Survey and Mapping of the Richardson Hall

The Richardson Hall is located in the northwest of the school, with white walls and red tiles, as shown in Figure 1 and 2. The symmetrical plane of the “T” shape faces southeast. The “-” part is the teaching building; the “I” part is the auditorium. We have made detailed surveying and mapping of the two-story planes of the building, as shown in Figure 3.

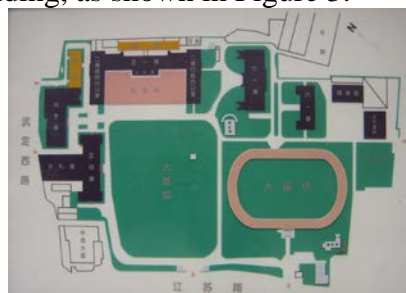


Fig.1 General Layout of the Campus



Fig.2 The Richardson Hall

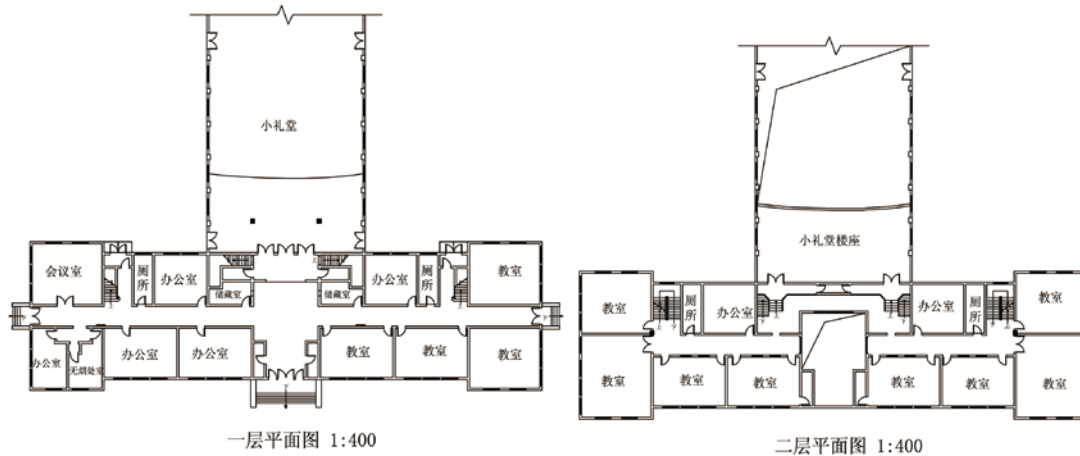


Fig.3 Plane Mapping of the Richardson Hall

The interior of the building is raised about five steps, with one entrance in the southwest and one in the northeast, as shown in Figure 4. The main entrance faces the lawn in the centre of the plane axis of symmetry. The upper half of the Gothic arch gate, which is more than two stories high, is decorated with stained glass. The sun shines in with warm golden colour, revealing the majesty of the building and the magnificence of religion, as shown in Figure 5 and Figure 6. The hall with the height of two floors faces the entrance to seats of the auditorium and the gallery of the second-storey, as shown in Figure 7. On the left and right sides we can see corridors of the first and second floors, with rooms on both sides, as shown in Figure 8. The hall and the big chandelier in it makes the teaching building more imposing. The building's beams and floor corners are very delicate; they are directly used as the ceiling. The ceiling and walls are painted as white, and the wainscots are painted as creamy yellow, with black marble skirting line. The ground of corridors and halls is decorated with terrazzo, which turns yellow after long years. There are black stripe patterns near the wall, and black circular patterns in the middle. The pattern follows the pattern of glass windows, as shown in Figure 9. The floor of rooms, including classrooms is made of wood, with slight height difference. Heating is provided throughout the building, including the auditorium. Plumbing can be seen under the windows of corridors and classrooms, as shown in Figure 10.



Fig.4 Entrance of the Building



Fig.5 Entrance Hall of the Building



Fig.6 Large Stained Glass Windows At the Main Entrance



Fig.7 To the Auditorium



Fig.8 Corridors on Both Sides of the Foyer



Fig.9 Tern



Fig.10 Heating under the Classroom Window

The teaching building has four floors. The first, second and third floors are the teaching part. Most of the classrooms are arranged on the south side, and other rooms are located inside. The attic on the top floor serves as the reading room with double sloping roofs and dormant windows. According to the position of the downpipe, it can be inferred that the reading room is connected to the roof.

There are four groups of stairs in the building, all arranged on the north side of the corridor. The stair steps are still paved with terrazzo and made of mosaic anti-skid strips. There are staircases in the middle of the two groups of stairs, which are mainly used for the auditorium. Therefore, only the first and second floors are connected. Iron handrails are set on one side of the wall. The two groups of stairs on both sides are the main stairs of the building. The first two steps on the first floor are gradually widened and made into semicircles, as shown in Figure 11. The armrest is made of red wood with round section and stripes, which is exquisite. The handrail is made of black cast iron, and the pattern is the same as the pointed pattern of glass windows, as shown in Figure 12. People can feel the uniform of details in the architecture.



Fig.11 Ir Step



Fig.12 the Pattern of Stair Railing



Fig.13 Parapet and Downspout

The exterior wall is roughened with white cement, which should be renovated in the later stage. It was originally large, white bricks. The parapet is distinctive, like inlaying a circle of high and low lace, as shown in Figure 13. At the same time, this element is also used in the window frame of the outer wall. With window sashes divided by black cast iron and the large area of windows on all sides, the front external wall looks rich and exquisite. All doors and windows indoor have a unified style and adopt the characteristics of Gothic doors and windows. The wooden doors and window frames which are painted in dark red have several layers. The door frames also have points to form a sharp arch. The thick wooden doors and the dark red colour make the doors stable and solemn, as shown in Figure 14. [7] The design of the door handle is also very exquisite. The round door handles with exquisite patterns still keep the original key hole, which is somewhat primitive and simple, as shown in Figure 15.



Fig.14 Door Details



Fig.15 Door Handle and Keyhole





Fig.16 Auditorium



Fig.17 Outside the Auditorium



Fig.18 Lass Windows with Arch



Fig.19 Square Glass Window



Fig.20 Simple Lighting

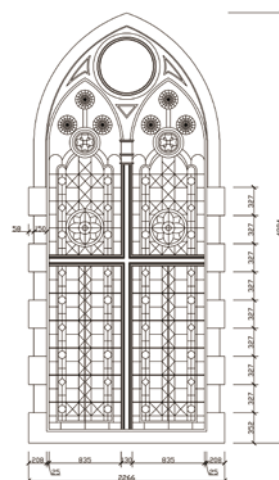


Fig.21 Facade of the Gothic Stained Glass Window with Arch

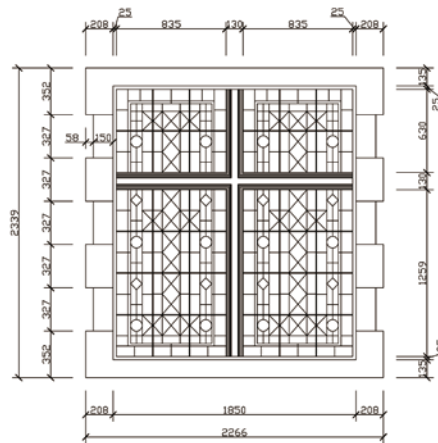


Fig.22 Facade of the Square Window of Stained Glass

Walking into the auditorium, all seats are made of black cast iron, with huge, colourful glass windows on both sides. We can feel the aristocratic and religious atmosphere, as shown in Figures 16 and 17. In such an atmosphere, people will consciously restrain themselves and make their behaviours as appropriate as possible. There are two forms of stained glass window, one is Gothic glass lattice window with pointed arches, as shown in Figure 18; the other is square glass lattice window, as shown in Figure 19. We have made detailed mapping for window samples, which can be found in Figures 20 and 21.

In addition, the lighting installed on walls of the building has same elements with Gothic windows. The lighting is simple and unsophisticated, as shown in Figure 22.

#### 4. Architectural Characteristics

The Gothic doors and large glass windows retain the religious atmosphere of a church school. It is symmetry in plane.

The teaching building is directly connected to the auditorium.

The window area is large and the indoor light is bright.

The main entrance has a two-story hall and an arched Paomalang gallery, which is solemn and spectacular.

The colour of the wall is plain; large tiles are selected and used.

The exterior wall parapet and window frames have the same lace.

The equipment is complete, with considerate ventilation and heating systems.

The door and window frames are very thick.

The door handles, stair handrails and other details are finely made with decorative style.

There are Gothic elements and patterns applied in ceilings, floors, stair railings, lighting and other details.

#### 5. Conclusion

The exterior of Richardson Hall does not have ostentatious Gothic features. However, starting from these large, stained glass windows, details inside the building keep the unity of Gothic elements. After a hundred years served as the main teaching building, the Richardson Hall keeps the steadiness and pride of middle school campus in Shanghai.

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