

Architectural Research and Reutilization of Lvshun Public High School Site

Liang Lang, Danyang Lv, Shiyuan Wang*

School of Architecture and Fine Art, Dalian University of Technology, Dalian, China

Email: *jzxy@dlut.edu.cn

How to cite this paper: Lang, L., Lv, D.Y. and Wang, S.Y. (2022) Architectural Research and Reutilization of Lvshun Public High School Site. *Journal of Building Construction and Planning Research*, 10, 125-139. <https://doi.org/10.4236/jbcpr.2022.104006>

Received: September 28, 2022

Accepted: December 12, 2022

Published: December 15, 2022

Copyright © 2022 by author(s) and Scientific Research Publishing Inc. This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).

<http://creativecommons.org/licenses/by/4.0/>



Open Access

Abstract

Public high school in Lvshun is a typical example of modern school architecture in Dalian during the Japanese colonial period. This paper summarises the historical background, development and current situation of the old site of public high school in Lvshun by approaches such as historical literature research and present situation surveying. Then, it analyses the characteristics of public high schools in Lvshun in four aspects: architectural scale, plane function, architectural style and material structure. After that, the school is judged to have four dimensions of value: historical, technological, and cultural and use value. In the end, this paper explores the protection and reuse of the building from the aspects of authenticity, suitability and integrity. It is intended to provide a theoretical basis for the protection and reutilization of modern architectural heritage.

Keywords

Lvshun Public High School Site, Building Characteristic Analysis, Present Situation Surveying and Mapping, Value Interpretation

1. Introduction

Modern educational architecture is an important type of modern architecture and an important material component of urban historical context [1]. It is of special practical significance to study the conservation of modern educational buildings. As a typical example of modern educational architecture, the old site of public high school in Lvshun not only witnessed the development and changes in Lvshunkou District's colonial history and educational history, but also showed the orientation of Japanese architectural style in the region. However, the lack of basic information has brought some difficulties for the follow-up preservation and restoration. Therefore, this paper is of great significance to the understanding, inves-

tigation and protection of this modern heritage.

Modern Lvshun experienced three periods of Russian Empire's lease, Japanese occupation and Sino-Soviet jointly built period, which made the construction and development of this city have a strong colonial style. In order to achieve the goal of permanent domination of Lvshun [2], a lot of schools and educational facilities, from preschool education to higher education, from general education to vocational education, were built in the occupied area during the Japanese occupation of Lvshunkou District [3] [4]. The public high schools in Lvshun were the only secondary education schools for Chinese men at No. 26 Meiji-Cho in Taiyanggou Block in Lvshun [5] (**Figure 1**, **Figure 2**). Today, as a Historical and Cultural Site Protected at the Provincial Level, its state of research and conservation is unsatisfactory.

At present, there are a lot of documents about the protection and reuse of modern educational architecture. Hui Zhang and Zhuo Chen [6] analyzed the present situation and problems of building protection in Nanjing universities during the period of the Republic of China and put forward some reasonable suggestions for protection strategies. Based on the research on the theories of memory place and the utilization of old buildings, Lei Shi [7] summed up the methods of evaluation and utilization of old buildings and applied them to the reuse of school architectural heritage. Liang Lang, Shiyuan Wang, Hui Yu and Jiuju Liu [8] have proposed understanding and conservation of the Taiyanggou Block and the Lvshun industrial school site. Jialin Zhu [9] investigated and analyzed the current situation of modern educational buildings in the Zhifu district and put forward some protection and reused strategies for reuse design practice. Shuaidong Hou [10] explored the reuse of campus cultural relics based on the functional demands of modern universities. The above research provides a beneficial reference for this article from many aspects. This paper analyzes the architectural features and value constitution of the old site of a public high school in Lvshun by means of literature collection, photo recording and on-site mapping. It is expected to provide a useful reference for the conservation and reutilization of this historical building and modern educational buildings.

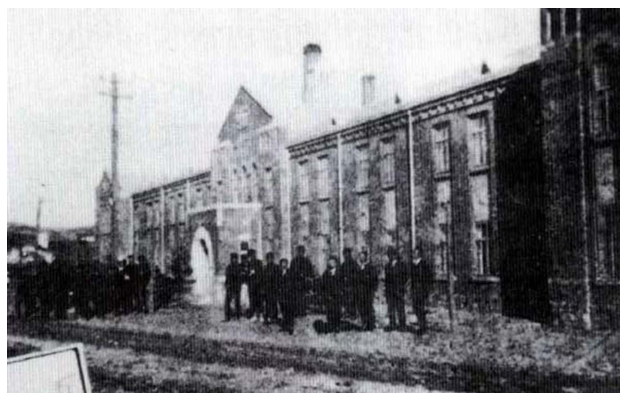


Figure 1. Picture of Lvshun public high school.



Figure 2. Map of Lvshun public high school site of Japanese colonial period.

2. Historical Data Research and Building Status Mapping

2.1. Historical Data Research

In order to fill in the lack of historical materials on the old site of public high school in Lvshun, this paper adopts the research methods of historical documents, historical photos, analogy of similar buildings and comparison of contemporary buildings. In terms of historical documents and photos, there are abundant historical materials on the changes in property rights and their use in Lvshun public high school. Min Wang [11] and Zaishang Cui [12] and other scholars have carried out a detailed analysis of them. In terms of architectural features and styles, scholars such as Wei Cui [13] have conducted preliminary research and style inference on public high school in Lvshun. It is concluded that there are relatively few historical materials on public high school in Lvshun. And the theoretical basis of their designers, architectural features, architectural styles and technical means are lacking. On the one hand, taking Japan's education policy to China as a reference, analogizing the characteristics of Japanese modern architectural style and similar architectural styles at home and abroad, this paper analyzes information on the architectural style, materials and structures of the school. On the other hand, In comparison with foreign contemporary architectures built by Japan in China and other contemporaneous buildings in Taiyanggou Block, this paper sums up the environmental features and features of the buildings themselves. The study of the above historical data can provide a basis for the architectural analysis of the public high school buildings in Lvshunkou District.

2.2. Surveying and Mapping of Building Status

On-site mapping is an important step to understand the status of the building. The traditional surveying and mapping method is simple and direct, but it has some disadvantages, such as low efficiency and low precision. 3D laser scanning technology saves time and effort, and the data is accurate, but the result data is large, easy to be limited by the shelter [14]. Surveying and mapping of the building status of the public high school site in Lvshun, which combined two methods, provides more accurate mapping data and drawings. The process is as follows:

1) Image collection and freehand sketch: Through the field survey they can collect a large number of valuable picture information for reference (**Figure 3**). Then, while observing the scene, they can hand-drawn sketches of building plans, sections, details and others to prepare the non-data information for the follow-up surveying and mapping record.

2) Data acquisition and arrangement: The 3D laser scanning station and target position are selected to scan the building according to the field conditions. The missing size and detail of point cloud data are acquired by traditional surveying and mapping methods (**Figure 4**). Then they will check, collate and splice the obtained data, and make up or retest the missing and wrong places in time.

3) Drawing and model construction: According to the data obtained from surveying and mapping, they will draw the plan, elevation and section of the building with AutoCAD software. Then, they will strive to restore the true and accurate architectural features by constructing the digital model with SKETCHUP, Rhino, etc.

3. Characteristic Analysis of Lvshun Public High School Site

Lvshun public high school was originally located at No. 2 Stalin Road west, Lvshunkou District, Dalian, China (**Figure 5**). The construction of the school, which was formerly known as Chinese class of Lvshun middle school, began in 1921 and was completed in 1924 [15]. In April 1924, the Chinese class set up Lvshun No. 2 middle school independently. The school was relocated to the present site of the Lvshun public high school. In 1932, Lvshun No. 2 middle school and Lvshun normal school were merged into Lvshun public high school [15]. As the normal school setting up independently, Lvshun public high school was re-named the Lvshun Boys' public school in 1944 [11]. After the defeat of Japan in 1945, Lvshun public high school was taken over by the Soviet Red Army and converted to a Soviet Army Children's School [11]. In 1955, the People's Liberation Army took over the school building as a barrack [12]. The PLA withdrew around 2010 and the school is enclosed and idle now. In 2017, Lvshun public high school site was named a Historical and Cultural Site Protected at the Provincial Level [12]. At present, the overall building of Lvshun public high school site is relatively intact, but has been faced with hollow, dilapidated predicament. **Table 1** shows the historical background and the changes for use of Lvshun public high school.

3.1. Environmental Scale and Architectural Scale

On the scale of environment, the east side of the building is small-scale historical residential buildings that stand in sharp contrast to Lvshun public school buildings. The north side of the school building is russian barracks, which are larger than the residential buildings but smaller than the school building. In addition, the west and south sides of Lvshun public high school site were open spaces such as green spaces, playgrounds and beaches during the Japanese occupation period

[16], so the school buildings and their towering chimneys occupied a leading and controlling position in the surrounding building groups.



Figure 3. Status photo of the site.



Figure 4. Building status mapping and point cloud data collation.

Table 1. Historical background and changes for use.

Time	Historical background and changes for use
1921	Lvshun middle school set up the first Chinese class.
1924	Lvshun public high school was completed. And the Chinese class set up Lvshun No. 2 middle school independently.
1932	Lvshun No. 2 middle school and Lvshun normal school were merged into Lvshun public high school. The addresses of both schools have not changed.
1944	The normal school setting up independently, and Lvshun public high school was renamed the Lvshun Boys' public school.
1945	Lvshun public high school was taken over by the Soviet Red Army and converted to a Soviet Army Children's School.
1955	The People's Liberation Army took over the school building as a barrack.
Around 2010	The People's Liberation Army retreated, and the building on the old site of Lvshun public high school was rented out to the local government for years to serve as shopping malls and pearl farms.
Now (2022)	Lvshun public high school is enclosed and idle now.



Figure 5. Satellite photograph of the site of 2022.

On the scale of the building itself, the main building is divided into three parts: student classrooms, an auditorium and office space. The Gross leasable area is 3348 square meters with an overall height of about 11.2 meters. The iconic chimney is 21.5 meters high. The east-west teaching building has a total length of 95.4 meters and the maximum depth is 11 meters. There are 6 ordinary classrooms on each floor which can accommodate more than 50 students. The office building is 33.7 meters long and has a maximum depth of about 10.5 meters. Each floor is divided into four offices or a number of auxiliary rooms. The office area is about 36 square meters, which can accommodate many teachers working at the same time. The hall is 24.2 meters wide and 18.8 meters deep with 10.2 meters high. The huge auditorium also serves as the examination room, lecture hall and so on. At that time about 150 students per grade, it can accommodate low, middle and high three grades students gathered at the same time.

In general, the building of Lvshun public high school is relatively large, but the design of the doors and windows in the facade takes into account the weakening of the sense of volume of the building as a whole. The main entrance of the school building is 4.5 meters high. The right-angled windows on the facades of the teaching building and the office building are 2.3 meters high. And the semicircular windows on the facades of the auditorium are 3.35 meters high. The use of these larger-scale doors and windows allows for a balance between the overall and local dimensions of the school building. **Figure 6** and **Figure 7** show the architectural dimensions of the surveying and mapping.

3.2. Planning Layout and Traffic Space

Lvshun public high school has two floors, with an F-shaped plan when it was first built. After the founding ceremony of the People's Republic of China, the building was rebuilt and expanded on the south-west side of the original building. A large space was added to the ground floor to change the plan into an E-shape. The students' classrooms that serve the principal function of a school occupy the south side of the main building. They are connected by the central entrance hall and the north end of the single-sided inner corridor and runs through the east and west of the building. The school auditorium which has rectangular plan is located on the south side of the foyer, and the single-story volume highlights the

central composition of the building. The office building connecting the east side of the classroom is still in the form of a single-sided inner corridor. The rooms are arranged linearly facing the inner courtyard, and the good line-of-sight communication facilitates the management and teaching of the students by the staff. On the west side of the classrooms is a one-story building constructed later, which is supposed to be a canteen.

The main entrance of the school is on the north side of the building, and the entrance opens onto the central foyer and staircase. Each classroom can be reached from the foyer through the inner corridor. Across the teaching area is the office area, and the two are connected on both floors. This results in a simple and efficient functional streamline of “main entrance-foyer-main function-ancillary function”. The south side of the foyer connects a hall and the campus auditorium, allowing this large empty space to have a rich visual order. The auditorium and office area have separate entrances and ensure that the route of students and staff do not interfere with each other. As can be seen from the above, Lvshun public high school has a clear and reasonable functional zoning, a concise and balanced arrangement of rooms, and a clear and convenient traffic space. The old school buildings were added and rebuilt to adapt to the development of the times, but the advantages of the above-mentioned were well preserved. The planning layout and traffic space are shown in **Figure 8**.

3.3. Architectural Style and Form Features

It is recognized that the architectural style of Lvshun public high school is eclecticism that has been the cushion through from “Tatsuno Style” to modernism. This style was inspired by Tatano Kingo who is the one of first generation of Japanese architects. After the Meiji Restoration, Japan was influenced by western

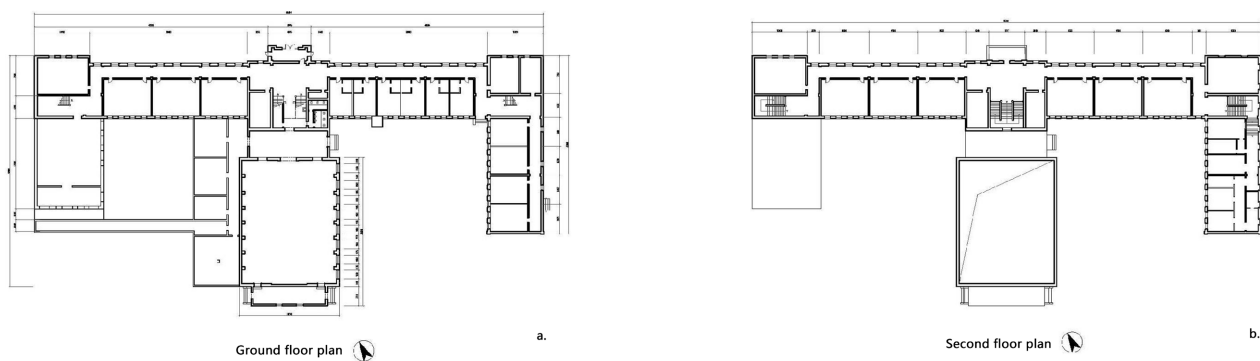


Figure 6. Plane of the surveying and mapping of Lvshun public high school site.

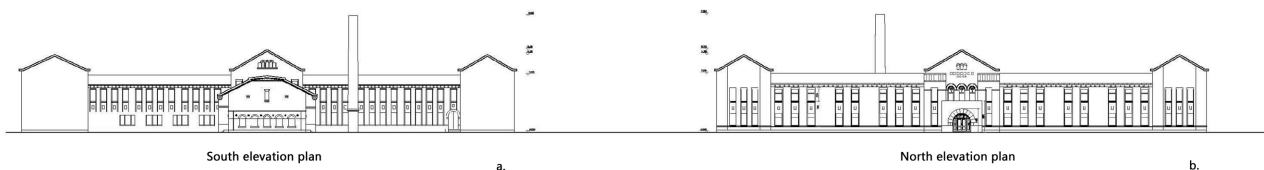


Figure 7. Façade of the surveying and mapping of Lvshun public high school site.









Figure 8. Planning layout and traffic space.

education so that a lot of western retro-style architecture appeared. The works of the first generation of architects are mainly divided into British, German and French schools [17]. The British School, represented by Kingo Chenno, was the most important school of Japanese architecture at that time. Its architectural form introduced the usual British style of “Queen Anna style” and incorporated the local architectural features on this basis. Most of these buildings use red brick walls and white ribbon stone, and mixed with a variety of cultural symbols. This style of architecture is a blend of classicism and Gothic style, and it is extremely eclectic [18]. Since 1907, architecture class of Manchuria Railway basically covers all the public facilities of affiliated area in Northeast China. Therefore, the design agency of Lvshun public high school speculates that it is also the architecture class of Manchuria Railway. They inherited and innovated “Tatsuno Style”, simplified the classical style to a certain extent, and formed a new eclecticism style. This paper studies the representative buildings of “Tatsuno Style” and related styles at home and abroad (Table 2), and makes a comparative study of the architectural styles and form features of public high in Lvshun.

The architectural style of Lvshun public high school shows many features of the “Tatsuno style”, such as the use of classicism, red brick walls, the decoration of horizontal white lines, etc.

On the basis of this style, it simplifies to modernism. Lvshun public high school use classical techniques such as “Symmetrical composition, Central axis, three-segment [19]”. The building body presents a Chinese character “山” on the plan of symmetry, horizontal expanded. The façade of main entrance is a typical classical style, three parts in horizontal directions and five parts in vertical directions, which form a strict symmetrical layout centering on the main entrance. The overall impression of the building is stable and generous. The central part of the façade consists of a prominent gable, heavily decorated windows and doors, and A pitched roof with shingles. The main entrance hall on the first floor juts forward to form a balcony. The door is decorated with roman arches, and the classical circular decorative collage is arranged between the combined-windows and arches. On the second floor, three sets of continuous arched windows connect the eaves slightly overhanging and the wall succinctly decorated, emphasizing

Table 2. Buildings of “Tatsuno Style” and related styles.

Name	Time	Architect	Picture
Tokyo Station	1908	Tatano Kingo	
Fengtian Station	1910	Takeshi Ohta	
Fengtian Railway Firm	1911	Takeshi Ohta	
Fengtian Post Office 尅律	1914	Shigemitsu Matsumuro	
Special Industrial School of South Manchuria	1912	Kensuke Yokoi	
Dalian No. 1 Middle School	1922	anonymous	

the central position of the gate. The two ends of the façade are divided into roof, wall and pedestal. The windows and the wall between them extend from the base to the roof. The eaves, windowsills and stub protruding from the façade increase the horizontal connection of the façade. The straight line element is prominent in the composition of the façade, adding a modern style to the building. The whole facade has a visual effect of balance and stability.

3.4. Structural Systems and Building Materials

The provisional regulations for the operation of houses in Dalian, adopted by the Japanese authorities in 1905, set strict limits on the structure and materials of buildings. It stipulated that fire-resistant structures must be used in permanent

buildings, such as brick structure, stone structure, etc. [20]. Against this background, the public high schools in Lvshun use a brick and wood structure. The bearing wall of the building is made of brick and stone, while the floor slab and roof truss are made of wood. The concrete method is that the foundation of the building follows the traditional Chinese technique of laying the cushion directly by digging the groove and laying the brick wall upwards (Figure 9). The load-bearing wall is strong and beautiful, using the British masonry method commonly used in Japan at that time (Figure 10) [21]. Triangular wooden roof trusses are placed on the brick walls, and the beams and trusses are designed to be geometric stability system. This kind of structure only bears the axial force and is not affected by the shear force and the bending moment, and has obvious superiority compared with the traditional timber structure (Figure 11).



Figure 9. The foundation of the school.

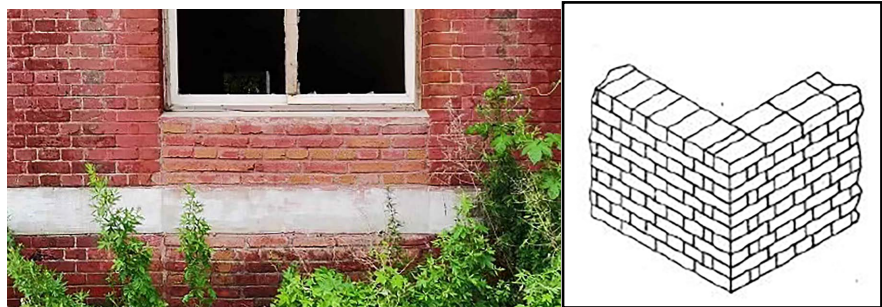


Figure 10. The British masonry method of the school [21].



Figure 11. The roof structure of the school.

The external walls of Lvshun public high school are made of newly developed red bricks, with red paint on the walls, and white paint on the stubs and the walls between the windows. The deep red walls are in sharp contrast to the white decoration, and the tone is elegant and lively. The arch on the main entrance is made of heavy stone, creating a dignified visual effect. The roof is in the form of a wooden roof truss with grey tiles. Windows are combined with wooden frames and glass. And both wood and tile floors are used indoors.

The school buildings have been repaired and rebuilt many times, and the new and old materials have different texture and strong identifiability. The use of materials in Lvshun public high school reflects the contrast and integration of tradition and modernity, as well as indigenization and internationalization.

4. Values of Lvshun Public High School Site

4.1. Historical Value

Lvshun public high school was completed in 1924 and is now nearly a century old. It is a historical sample of modern educational buildings and a materialized carrier of social development during the Japanese occupation. The unique layout, scale, composition, structure, materials and details of Lvshun public high school retain the true historical information of the 1920s. In a hundred years, the building after continuous damage and repair is still basically intact, showing the continuation and development of history. In addition, Lvshun public high school has trained a large number of outstanding alumni, including the first Chinese Olympic athlete Changchun Liu and revolutionary martyr Qionong Dong. These well-known figures have added to the rich historical and cultural connotations of Lvshun public high school. Therefore, the preservation of the old site of Lvshun public high school is also the preservation of the historical context. Historical value is one of its important protective values.

4.2. Technological Value

When the Japanese invaded China, many of the houses were built with construction technology that China had never had before. Lvshun public high school was built in many ways that were typical of the Japanese colonial period [22]. The brick-and-wood structure of the school is get Rid of the restrictions of traditional Chinese wooden structures. Using brick walls to support the load allows for more floors, larger spaces and more flexible decoration. The use of arches and stubs in the details, such as doors and windows, are exquisite and modern, representing the architectural trend and advanced technology of the particular era. At the same time, the popularity of modern equipment such as electric lights and running water in the school building has greatly improved the comfort and utilization rate of it. And some of the equipment can still be used today. This largely reflects the scientific and rational nature of the building technology. The value of building technology embodied in the construction and use of this school is still of great significance to the development of building technology today.

4.3. Cultural Value

The modernistic trend brought by colonialists made the architectural present unique and pluralistic features. Lvshun public high school and Taiyanggou Block have formed a complete colonial style due to their typical layout, façades and materials. The architectural thinking, eclectic methodology and heavy structures adapted to the north-east climate that Japanese architects used, shows that the recognizability and compound of culture. At the same time, as the only secondary education schools for Chinese men, Lvshun public high school has trained many outstanding Chinese students. It has long been the emotional sustenance of a generation. Today, the architecture of Lvshun public high school site has become a cultural symbol with high cultural value.

4.4. Use Value

Educational buildings such as Lvshun public high school not only has its own practical significance that can not be ignored, but also can bring certain economic value. On the one hand, although the building of Lvshun public high school looks dilapidated, it is not badly damaged. And the space and equipment inside the building still meet the requirements of modern life. To protect and repair the building can prolong the service life of the building and access to a higher use value. On the other hand, the architectural style of the Lvshun public high school site has a distinct personality, which complements the atmosphere of Taiyanggou Block. The deep impression of the city can drive the development of tourism and create economic benefits. The historical and cultural values of the school building can provide venues and materials for exhibitions, book signings and cultural and creative products to bring economic benefit. In this way, not only the historic building itself has been reasonable use, but also the urban culture has improved.

5. Primary Exploration of Conservation and Reuse

Based on the above-mentioned values, we should give full play to the historical, technological, and cultural and use values of Lvshun public high school site. This paper puts forward the strategy of protection and utilization of this architectural heritage from three angles of authenticity, suitability and integrity, so as to realize the maximization of the value of the modern school architectural heritage.

5.1. To Respect the Authenticity

As an important building of the specific historical period, Lvshun public high school site retains the real historical information of the period. In the subsequent preservation and reuse of the building, it is necessary to identify the historical information and elements of the building itself and clarify the true appearance of the building. Based on the principle of minimum intervention, the main body and structure of the building were strengthened and repaired, and the typical style of heritage was emphasized.

5.2. To Meet the Suitability

Based on the Lüshunkou District's colonial city background and the environment of Taiyanggou Block, Lvshun public high school site's conservation and reuse should meet the needs of Lüshunkou District's development, the needs of local residents' lives and the needs of tourists' visiting. In the process of building use value, we should adapt to local conditions and play a specific role for specific users.

5.3. To Emphasize the Integrity

Lvshun public high school site is located in the Taiyanggou Block, which has formed a unique district with rich cultural connotations and historical value. Two levels that are building body and historical block should be taken into account in the research on the strategy of protection and activation. This is beneficial to the inheritance of urban history, the shaping of the overall impression and the preservation of collective memory.

6. Conclusions

Lvshun public high school site is a typical example of modern educational architecture. It is a witness of many important historical events and historical figures, as well as a reflection of multicultural ideology and dissemination in the colonial period. The construction of Lvshun public high school has established a dominant position among the surrounding buildings. The building has a clear and reasonable layout, a clear and convenient traffic space, and a comfortable architectural scale. The eclecticism style from "Tatsuno Style" to the modernism of the building and the advanced technology of the colonial period makes the architecture have multi-dimensional value. Lvshun public high school site should have received more attention as a Historical and Cultural Site Protected at the Provincial Level, but has been faced with a hollow, dilapidated predicament. Therefore, this paper studies the historical background, development history and current situation of Lvshun public high school site by means of historical literature research and present situation surveying. On the basis of the former, the paper analyzes the architectural scale, plane function, style form and material structure and other characteristics. After analyzing its historical, technological, cultural and use values, this paper explores the protection and reuse of the building from three aspects of authenticity, suitability and integrity.

Educational architecture plays an important role in the development history of modern China. The research and protection of modern educational architecture can not only reproduce its historical and cultural characteristics, but also awaken the public's memory of architectural heritage and make it perpetuate. This study will supplement the basic information of the Lvshun public high school site in order to provide a reference basis and theoretical foundation for the study of this important historical building and other modern educational buildings.

Acknowledgements

The authors wish to express their profound gratitude to the guidance and hard work of the teachers and the 2018th-grade architecture undergraduates of the Dalian University of Technology, and thank them for the support of the Fundamental Research Funds for the Central Universities of China (No. DUT20RW111).

Notes

“Queen Anna Style Architecture” is often used to describe manor houses designed by native English architects and popularized by Richard Norman Shaw at the end of the 19th century. The main features are the use of local stone and red brick materials, irregular steep-pitched roofs, the tower at the end of the building and so on.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

References

- [1] Che, W. (2008) Study on the Educational Architecture during the Period of Qingdao Occupied by Germany and Japan. M. Arch. Dissertation, Qingdao Technological University, Qingdao.
- [2] Yan, L. (2012) Enslavement Education in the Period of Japanese Colonial Period: A Case Study of Lvshun and Dalian. *Research on Modern History of Dalian*, **9**, 186-194.
- [3] Editorial Committee of the History and Culture Series of the Dalian Federation of Social Sciences (2013) History of Education. Dalian University of Technology Press, Dalian.
- [4] Pang, Y. (2014) Japan’s “Education Characteristics and the Influence of Colonial Enslavement Kanto State” Inquiry. M. Arch. Dissertation, Harbin Normal University, Harbin.
- [5] Cheng, W. (2012) History of Lease Territory in Lvshunkou and Dalian. Shanghai Academy of Social Sciences Press, Shanghai.
- [6] Zhang, H. and Chen, Z. (2010) Protection of Architectures Built during the Period of the Republic of China in Nanjing Universities. *Shanxi Architecture*, **8**, 20-21.
- [7] Shi, L. (2014) Application of Memorial Places and Old Buildings with Historical Continuity—With School Relocation Planning and Building Design of Jianmin Middle School in Jianshui County as Example. M. Arch. Dissertation, Kunming University of Science and Technology, Kunming.
- [8] Lang, L., Wang, S., Yu, H. and Liu, J. (2018) Modern Heritage Investigation and Conservation: A Case Study of Taiyanggou Block and Lvshun Industrial School Site. *Journal of Building Construction and Planning Research*, **6**, 122-137.
<https://doi.org/10.4236/jbcpr.2018.63009>
- [9] Zhu, J. (2020) Protection and Regeneration of Modern Educational Buildings in Zhifu District, Yantai. M. Arch. Dissertation, Qingdao University of Technology, Qingdao.
- [10] Hou, S. (2021) A Preliminary Study on the Reutilization of Campus Cultural Relics Based on the Functional Demands of Modern Universities. M. Arch. Dissertation,

Hunan University, Changsha.

- [11] Wang, W. (2012) Modern School Buildings in Lüshunkou District during Russian and Japanese Rule. *Lantai World*, **7**, 75-76.
- [12] Cui, Z. (2020) Research on the Site of Educational Institutions in Lüshunkou District during the Japanese Colonial Period. *Research on the History and Culture of Dalian*, 220-228.
- [13] Cui, W. (2015) Research on Status and Protection of Lvshun and Dalian's Education Building in the Russian Japanese Ruling Period. M. Arch. Dissertation, Dalian University of Technology, Dalian.
- [14] Wei, M. (2011) The Whole Process of Conservation and Restoration of Historic Buildings—From Berlin to Shanghai. Southeast University Press, Nanjing.
- [15] Sun, J. and Gao, S. (2008) History of Lüshunkou District. Dalian Maritime University Press, Dalian.
- [16] Lvshun No. 2 Middle School-Public High School Section "Alumni Memoirs" Editorial Board (1996) Alumni Memoirs. Lvshun No. 2 Middle School-Public High School Section, Dalian.
- [17] Liu, M. (2015) A Form and Façade Compositional Study of Affiliated Area of Manchuria Railway at Shenyang in Modern Times. M. Arch. Dissertation, Shenyang Jianzhu University, Shenyang.
- [18] Zhou, T., Chen, Q. and Ukai, T. (2019) Modern Japanese Architect Tatsuno Kingo and "Tatsuno Style" Architecture. *World Architecture*, **8**, 127-131, 141.
- [19] Huang, H. and Zheng, D. (2003) On Neoclassicism and Contemporary Architecture Creation. *Chinese & Overseas Architecture*, **1**, 6-7.
- [20] Mu, Q., Zhang, F., Muramatsu, S. and Yasuhiko, N. (1992) An Overview of Modern Chinese Architecture in Dalian. China Architecture & Building Press, Beijing.
- [21] Liu, S. (2015) Communication and Development of Shenyang Modern Architecture. M. Arch. Dissertation, Xi'an University of Architecture and Technology, Xi'an.
- [22] Fujimori, T. and Wang, B. (1986) The History of the Study of Modern Japanese Architecture. *World Architecture*, **6**, 76-81.