THE HISTORIC PRESERVATION AND REBIRTH OF THE SHELL OIL COMPANY STORAGE IN TAMSUI, TAIWAN

Chih-yuan, Chang

¹ PhD Candidate, Graduate School of Design, National Yunlin University of Science & Technology, Taiwan

ABSTRACT:

The article uses the Shell Oil Company Storage Site in Tamsui is used as a case study in this article, in order to discuss the strategic recovery and maintenance of cultural heritage buildings through a process of historic preservation. Using historical research methods and fieldwork, the history of this storage, including its architectural style, and the agreement between Lapraik Cass & Co. and Shell Transport & Trading Co. Ltd are investigated. This Shell Oil Company Storage Site gives a unique historical perspective of a foreign company in Tamsui, Taiwan, between 1860 and 1945, from the shift in land ownership to the site planning. The design strategy for the historical preservation and rebirth of the Shell Oil Company Storage Site has similarities to the previous landscapes and remains represented in the Piatou eco-museum, and are thus related to other areas of historical heritage in Tamsui.
1. INTRODUCTION

While architectural conservation in Taiwan emphasizes single buildings, the concept of environmental sustainability and the rebirth of cultural heritage is a necessary step to imbue this conservation with historical meaning. This article explores the strategic recovery and maintenance of cultural heritage through historical preservation and rebirth. In order to discuss the case of the Shell Oil Company Storage, the concepts of industrial heritage, preservation and sustainable architecture must first be clearly defined.

In Wikipedia, preservation is referred to as the action or process of protecting, maintaining, and/or stabilizing the existing materials, form, and integrity of a historic place or of an individual component, while protecting its heritage value. Preservation can include both short-term and interim measures to protect or stabilize the place, as well as long-term actions to retard deterioration or prevent damage, so that the place can be kept serviceable through routine maintenance and minimal repair, rather than extensive replacement and new construction.

“Historic Preservation” is defined as “the act of maintaining and repairing existing historic materials and the retention of a property's form as it has evolved over time.” Kay Weeks’ interpretation states: “Preservation calls for the existing form, materials, features, and detailing of a property to be retained and preserved. This may include preliminary measures to protect and stabilize it prior to undertaking other work--or protection and stabilization may be an end in itself, for example, in an archeological project” (Weeks, 1993). Thus, historic preservation is a vital tool in the effort to save historic buildings and locales, helping maintain a community’s historical roots and providing various educational opportunities.

2. METHOD

This paper discusses the historical relevance of the storage site in relation to foreign companies, why it was established, its architectural design, and offers suggestions for the preservation and rebirth of its cultural heritage.

The historical research methods and fieldwork used in this endeavor are described as follows. First, we collected fundamental information, such as the original construction dates and important
matters concerning the Shell Oil Company Storage in the 19th and 20th centuries, including the 
original agreement of 1897, as well as photographs of the buildings and original documents. These 
documents assisted in the analysis of questions of ownership, site planning and the content of 
business documents, which existed between the Shell Transport & Trading Co. Ltd and Lapraik 
Cass & Co. from 1898 to 1908. Second, documents related to the history of the Shell Oil Company 
and related cases in Taiwan, China and Japan were collected. Third, photographs were taken and 
drawings made to examine the historical features and uniqueness of both the site and the 
architecture, in order to determine the most appropriate design strategy.

The main focus was on analyzing the history of the Shell Oil Company Storage, the transformation 
of its landscape and the uniqueness of the site, providing a historical imagery, which was useful in 
creating a sustainable design strategy and offering suggestions for the maintenance of this 
particular cultural heritage.

Few attempts have been made to investigate the history of the Shell Oil Company Storage in 
Tamsui and most of the relevant literature comes from the trading history of Tamsui in the 19th and 
20th centuries. The main documents are from: The Shell Oil Company (1897); Taipei Tingbao 
(1909); Tomoyaki Kawata (1917); Aki Morishige (1929); Tamsui Junyisuo (1930) (1934); Huang 
(1982); Taiwan Historica (1994); Xu (2001); Xie (2001); Huang (2002); and Lee (2003).

In the land agreement between the Chinese Hua-san Gi and the English merchant Hankard, from 
Taiwan Historica (1994), we were able to discover the process of land exchange in Paitou in 
1894. The most telling historical document comes from The Shell Oil Company (1897), which 
allows us to understand the development of Lapraik Cass & Co., trading between England and 
Tamsui, from 1897 to 1908. We can see from Taipei Tingbao (1909) reports, that the companies 
had rental agreements in perpetuity in Tamsui in 1909, while the historical development of the 
Rising Sun Petroleum Co. Ltd is described by Tamsui Junyisuo (1930) (1934). Huang (1982) 
describes the dealings of Paitou companies in the 19th century and then Lee (2003) investigates 
the historical and architectural features of the Shell Oil Company Storage. The author participated 
in Lee’s study and took part in a historical survey in 2003.

Obviously, the present study must discuss this historical survey of the Shell Oil Company Storage 
in detail. We begin by focusing on the history of the Shell Oil Storage and its connections with 
other companies in Tamsui during the Qing Dynasty and Japanese Period. Then, we discuss the
features of the Shell Oil Company Storage Site and the problems they present. Finally, the design strategy for its rebirth as an eco-museum is discussed, elaborating on the sustainable architecture required to enhance historical meaning and preservation.

3. RESULTS

3.1. SURVEYING THE HISTORY OF THE SHELL OIL COMPANY STORAGE

Tamsui, often referred to as “The Venice of the East”, embraces beautiful vistas; it also played an important role in the history of commercial trade in Taiwan during the 19th and 20th centuries. In 1858, after being attacked by British-French allied forces, China was forced to open its ports for free trade under the Tienjin Treaty. These ports included Huwei (Tamsui), Taiwan (Anping), Niuzhuang, Dengzhou, Chaozhou, Qiongzhou, Zhenjiang, Jiujiang, Hankou, and Jiangning. In 1862, a Customs department was set up in Taiwan, and the opening of Tamsui Port ushered in a golden era of commerce for Tamsui, reaching its peak in 1887. During this period, Tamsui became an internationally renowned port, greatly increasing revenue for the Qing government.

During the 19th century, Western nations were searching for secure and profitable sites in which to conduct business and trade, while at the same time converting the natives to Christianity. Taiwan was just such a place; Chinese law, however, prohibited the sale of land to foreigners. Westerners were only permitted to rent a house or buy a house on leased land, referred to as renting in perpetuity, when establishing a company, consulate, club, house or church. The majority of the buildings rented by foreigners were located in Paotaipu, including the English Consulate, Lapraik, Douglas & Co. Tait & Co., Mackey’s house, the Missionary’s house, Tamsui Girl’s School and Oxford College (Davison. 1972: 225, 309).

The foreign companies in Tamsui in the 19th century were seldom shops or stores, but important agencies, conducting international trade in Taiwanese commodities, such as tea, sugar, camphor, coal and petroleum. These companies built storages and bridges. The Shell Oil Company, based in Piatou, was one of the foreign companies established in Taiwan in the 19th century.
According to the survey, at that time Piatou was located at the eastern edge of Tamsui and few Chinese people lived there before 1870. In the east of Piatou, Jardine Matheson & Co. had rented land and built houses there around 1870. Then Milisch & Co. took over as the agent from Jardine Matheson & Co. and finally, Dodd & Co. set up to manage the tea trade (Huang, 1982: 125, 131, 132). In the west area of Piatou, there were only some Chinese cottages and paddy fields on the site. However, according to historical records, Hankard rented the area including the paddy fields, orchards, and cottages from Hua-san Ji in 1894, the rent being 2400 Yuan, annually (Taiwan Historica, 1994: 1358-1359).

Some important information related to Tables 1 and 2 is laid out below.

(1) In 1868, John Dodd was the agent of Dent & Co. in Tamsui; in the 1870s, Dodd & Co. moved to Keelung. During this period, Dodd & Co. was located in the Piatou region.

(2) Milisch & Co. was established in 1865 and ended up in 1870 in Tamsui.

(3) Lapraik, Douglas & Co. was established in 1884 and changed its name to Lapraik, Cass & Co. in 1893. In 1897, Lapraik, Cass & Co. in Tamsui finally became the agent of the Shell Transport & Trading Co. Ltd for Xiamen (The Shell Oil Company, 1897). On Sep 1, 1909, the company rented this site in perpetuity (Lee, 2003: 38), which was established in Tamsui in 1902, and changed its name to the Rising Sun Petroleum Co. in 1910.

(4) The Rising Sun Petroleum Co. Ltd was established in Japan in 1900, and opened a branch in Taiwan in 1910. Rising Sun Petroleum Co. Ltd was established in Tamsui in 1911, and on May 27, 1912, the company rented this site in perpetuity until April 1, 1945 (Lee, 2003: 38).

(5) Samuel Samuel & Co., Ltd. was established in Tamsui in 1904 and was called the Shipping & Coal Depot. The company was situated in Piatou.

(6) In the records of 1909, the Shell Transport & Trading Co. Ltd., Jardine, Matheson & Co. and Samuel Samuel & Co. Ltd. were also situated in Piatou.

In the beginning, the wharf was designed for steamships. Later, tanks were built on the hillside, in order to store the oil.
According to the survey, the Rising Sun Petroleum Co. Ltd. transported petroleum from the Tamsui River by railway to other regions. The volumes of the petroleum tanks used at the site were a 60 ton settling tank, 1200 ton kerosene tank and a 2500 ton oil tank. There were also heavy oil pump rooms, petroleum pump rooms, warehouses to store oil barrels and other equipment and a residence for the caretaker. The pumping equipment drew the heavy oil from the steamships in the Tamsui River and sent it to the petroleum tanks via iron pipes (Tamsui Junyisuo, 1930).

(Table 1) Important Foreign Companies Established in Tamsui in the 19th Century

<table>
<thead>
<tr>
<th>Company</th>
<th>Date Established</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lapraik, Douglas &amp; Co.</td>
<td>1884, W. Christy</td>
</tr>
<tr>
<td></td>
<td>1887, F. Ashton</td>
</tr>
<tr>
<td></td>
<td>1893: Company changes name to “Lapraik, Cass &amp; Co.”</td>
</tr>
<tr>
<td></td>
<td>1893, H. P. White</td>
</tr>
<tr>
<td></td>
<td>1895, F. Cass (Xiamen)</td>
</tr>
<tr>
<td></td>
<td>1895, H. P. White</td>
</tr>
<tr>
<td></td>
<td>1901, F. Ashton (to 1902)</td>
</tr>
<tr>
<td>Shell Transport &amp; Trading Co. Ltd</td>
<td>1902, A. Dransfield</td>
</tr>
<tr>
<td></td>
<td>1903, Y. Arikawa</td>
</tr>
<tr>
<td></td>
<td>1904, Y. Ikoma</td>
</tr>
<tr>
<td></td>
<td>1905, Y. Arikawa</td>
</tr>
<tr>
<td></td>
<td>1906, O. Tobiesen</td>
</tr>
<tr>
<td></td>
<td>1910, Company changes name to Rising Sun Petroleum Co. Ltd.</td>
</tr>
<tr>
<td>Samuel Samuel &amp; Co., Ltd. (Shipping &amp; Coal Depot)</td>
<td>1904, Y. Arikawa</td>
</tr>
<tr>
<td></td>
<td>1906, O. Tobiesen</td>
</tr>
<tr>
<td></td>
<td>1908, W. H. Gaskell</td>
</tr>
<tr>
<td></td>
<td>1911, J. F. Maagdenberg</td>
</tr>
<tr>
<td></td>
<td>1912, O. Tobiessen</td>
</tr>
<tr>
<td>Rising Sun Petroleum Co. Ltd</td>
<td>1911, J. F. Maagdenberg</td>
</tr>
<tr>
<td></td>
<td>1912, F. K. Brownrigg</td>
</tr>
<tr>
<td></td>
<td>1928, G. Ringnalda</td>
</tr>
<tr>
<td></td>
<td>1938-39, F. H. Culpin</td>
</tr>
</tbody>
</table>

Source: Hong Kong Daily Press, 1863-1902; 1876; 1918-1941; 1920; Huang, 2002: Appendix.

The Rising Sun Petroleum Co. Ltd. was taken over by the Japanese Government in 1944 for war purposes; however, on October 12 and 13, 1944, American F6F Grumman aircraft bombed the petroleum tanks, office and warehouses (Taiwan Zongdufu Fangweibenbu Fangkongbu, 1944: 41-42).

After 1945, the Taiwanese Government took over the Shell Oil Company Storage buildings and lands from the Japanese Government and by 1946, the National Property Administration in Taiwan held ownership (Taiwan High Court, 1995). All of the buildings of the Rising Sun Petroleum Co. Ltd. in Tamsui were being used as storages at that time.
In 1952, the petroleum tanks were no longer in use and the buildings were being used as storages. In 1971, the railway from Tamsui station to the Rising Sun Petroleum Co. Ltd. was demolished as it was no longer required.

(Fig. 1) The Scope of the ‘Rented in Perpetuity’ land in Tamsui in the Japanese Period. The Circle is Paitou. The rectangle is Paotaiyu. Source: The Diplomatic Record Office of the Ministry, 1897.

(Fig. 2) Map of the Lapraik, Cass & Co. Storage in 1900. Source: Taiwan Historica., 1900.

(Fig. 3) Map of the Shell Oil Company Storage in 1902. The storage facilities and tanks were not yet built. Source: Lee, 2003: 117.

(Fig. 4) Map of the Shell Oil Company Storage in 1934. There was a railway above the site for the transportation of oil. Source: Lee, 2003: 119.

(Fig. 5) The site of the Rising Sun Petroleum Co. Ltd. in 1944. Source: The website of the Library of the University of Texas in Austin.

(Fig. 6) Map of the Shell Oil Company Storage in 1952. Source: The Shell Oil Company, 1952.

The Shell Oil Company of China was able to apply to the National Property Administration and Tamsui Town Institution in 1988 for ownership (Taiwan High Court, 1995). Pertinent aspects of this transaction are laid out below.
(1). The Borrowed Land Authority showed that the site belonged to the Shell Transport & Trading Co. Ltd., which was a different legal entity and had different ownership from the Shell Company of China Ltd.

(2). England and Japan were antagonists during the Second World War and the land had been confiscated by the Japanese Government. After the war, in 1947, the Shell Company of China Ltd. requested that the Taiwanese Government give them back the land. In the end, ownership of the land reverted to the National Property Administration because the Republic of China and England broke off relations in 1950.

In 1997, a Tamsui Civilian Group opposed the building of fast roads through the site, proposing that the Shell Oil Storage Company be treated as a cultural heritage site. In 2002, the site was finally designated as a historical heritage site and was donated to the Tamsui Community University.

3. 2. A SURVEY OF THE AGREEMENT BETWEEN LAPRAIK CASS & CO. AND SHELL TRANSPORT & TRADING CO. LTD IN TAMSUI

In 1897, Lapraik Cass & Co. became the agent for the Shell Transport & Trading Co. Ltd (The Shell Oil Company, 1897). The Agreement was signed on November 19, 1897 and included some important information about the business, as follows.

(1). According to the agreement, the founder of the Shell Petroleum enterprise was Marcus Samuel.

(2). The Shell Transport & Trading Co. Ltd employed Lapraik Cass & Co. to act on behalf of the Company in the petroleum business at Amoy and Tamsui, during the continuance of the agreement from 1898 -1907. The agency took effect from January 1, 1898, and continued for a term of ten years.

(3). Lapraik Cass & Co., acting as agents, undertook to perform all duties required in the petroleum business, at Amoy and Tamsui, and from time to time were directed in the performance of such duties. Lapraik Cass & Co. confirmed that they would carry out all such instructions and directions.
(4). Lapraik Cass & Co. provided, at their own expense, all office accommodations for the petroleum business of the Company at Amoy and Tamsui. The remuneration Lapraik Cass & Co. received, as agents, was a commission of one per cent upon the gross annual receipts from the sales of petroleum, sold by them at Amoy and Tamsui, on the Company’s behalf.

(5). Lapraik Cass & Co., during the continuance of the Agreement, undertook to perform like duties and services in relation to the Company’s ships at Amoy and Tamsui, under the arrangements subsisting between them and Marcus Samuel & Co., Ltd., undertaken and performed in relation to Marcus Samuel & Co. Ltd.’s ships at Amoy and Tamsui.

(6). For the purpose of those presents, the expression “Lapraik Cass & Co.” wherever the context so admits, was deemed to include not only the firm as it was then constituted, but the person or persons or Company who may have been, for the time being, entitled to the goodwill of the business carried on by Lapraik Cass & Co.. Lapraik Cass & Co. would not, nor would any member (whether present or future) thereof and whether while continuing to be such member or after ceasing so to be at any time, so long as any commission continued to be payable by the Company, carry on or be concerned or interested directly or indirectly and whether as principal agent manager assistant or otherwise in any business connected with Petroleum (no matter from what place or production) at any port or place Eastward of Suez and Westward of America, which might in any manner compete with or prejudicially affect the Petroleum business or Petroleum Shipping business of the Company or any part thereof, or any contemplated extension thereof, without the express sanction of the Company under seal.

(7). If at any time during the continuance of the Agreement, or after the expiration or determination thereof, any disputed difference or question arose between the parties or any of them or theirs or any of their representatives touching the construction, the meaning of the Agreement would be referred to two Arbitrators or their Umpires in London, pursuant to the “Arbitration Act, 1880” or any other statutory modifications being in force at the time.
(Table. 2) Property Rented in Perpetuity in the Piatou Area (Zhilan Sanbao Ganzhenlin Zhang Zhangzimeij) in 1909

<table>
<thead>
<tr>
<th>Land Reference Number</th>
<th>Land Use</th>
<th>Area (jia)</th>
<th>Rented by</th>
<th>Rent</th>
</tr>
</thead>
<tbody>
<tr>
<td>34</td>
<td>Building</td>
<td>0.6421</td>
<td>Shell Transport &amp; Trading Co. Ltd.</td>
<td>2400 Silver Yen</td>
</tr>
<tr>
<td>102</td>
<td>Field</td>
<td>0.3790</td>
<td></td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>Field</td>
<td>0.2254</td>
<td>British Merchant Varentain Fvensuwos Geyondotst</td>
<td>1839 Silver Yen</td>
</tr>
<tr>
<td>51</td>
<td>Building</td>
<td>0.7784</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50</td>
<td>Building</td>
<td>0.1542</td>
<td>Jardine, Matheson &amp; Co. Ltd.</td>
<td>225 Silver Yen</td>
</tr>
<tr>
<td>66</td>
<td>Field</td>
<td>0.2543</td>
<td></td>
<td>2000 Silver Yen</td>
</tr>
<tr>
<td>36</td>
<td>Field</td>
<td>0.2221</td>
<td>Samuel Samuel &amp; Co. Ltd.</td>
<td>300 Silver Yen</td>
</tr>
<tr>
<td>67</td>
<td>Farm</td>
<td>0.1685</td>
<td>English Merchant Cheng-ji Ye</td>
<td>310 Silver Yen</td>
</tr>
<tr>
<td>68</td>
<td>Pool</td>
<td>0.0121</td>
<td></td>
<td></td>
</tr>
<tr>
<td>69</td>
<td>Building</td>
<td>0.0100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>70</td>
<td>Field</td>
<td>0.1651</td>
<td></td>
<td></td>
</tr>
<tr>
<td>82</td>
<td>Field</td>
<td>0.1241</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Taipei Tingbao, 1909.; Huang, 2002: 3-17. 1jia = 2934 plain

3.3. SUGGESTION REGARDING ENVIRONMENTAL SUSTAINABILITY AND THE REBIRTH OF THE SHELL OIL COMPANY STORAGE

In the 19th and 20th centuries, many foreign companies had storages in Tamsui, Taipei, Keelung, Tainan, Anping, Takao and Qihou. However, the Shell Oil Company Storage in Tamsui is very well preserved and is a unique case.

The Shell Oil Company Storage Site is located at the east end of the Damsui Mass Rapid Transit Station. In 2002, the storage was designated an historical heritage site and donated to the Tamsui Community University. The strategy and suggestions regarding environmental sustainability and the rebirth can be found in Table 3. Important information is as follows:

(1). The oil lines have disappeared, the tanks, the manager’s residence, the embankment and the landing stage remain.
(2). The plan is rectangular and the storage combines Western, Chinese and Japanese styles. The trusses are of the queen-post and king-post styles. The roof consists of wood trusses with two slopes. The middle of the beam consists of a brick column, with stone on top.


In the survey, the site planning was made up of 3 zones:

- the storage facilities close to the wharf;
- the tanks beside the storage facilities and railway;
- the residence close to the road.

Special cultural and historical features of industry in the late 19th and early 20th centuries were part of the site design, specifically the landscape combining the railway, the river and the buildings.

Lee, in his investigation, pointed out three important items that are relevant to the rebirth of the Shell Oil Company Storage (Lee, 2003:131-140):
(1). The original landscape and plants should be preserved.

(2). The remains must be maintained.

(3). The roof and the interior of the storage should be repaired to return them to their original condition.

However, this suggestion leaves us with no connection between what’s left of the landscapes and the storages because the sites are so widely separated. It also does not consider the connection situation of the Platou and Paotaipu.

The challenge now is how to authentically represent its history and determine how it fits in with the other cultural heritage sites in Tamsui. The storage is special as a heritage site in the following ways:

(1) It has its own unique identity.

(2) It has a complex history.

(3) There are viable remains and a good environment to work with.

Therefore, this case warrants preservation as a heritage site based on its historical value and the environmental sustainability of the site. The strategy for conservation should concentrate on the following questions:

(1) Which values, embodied in the Shell Oil Company Storage, warrant protection?

(2) How can this heritage site be effectively protected and become economically viable?

(3) Can activities for visitors be provided in appropriate and safe conditions?

(4) How can we educate the different kinds of visitors?

(5) How can a partner-relationship between the museum and the locals be established, providing activities that will benefit both parties?
(Table. 3) Strategy and Suggestions Regarding Environmental Sustainability and the Rebirth of the Shell Oil Company Storage Site

<table>
<thead>
<tr>
<th>Buildings</th>
<th>Photographs</th>
<th>Characteristics</th>
<th>Strategy</th>
<th>Suggestions</th>
</tr>
</thead>
</table>
| Storage ‘A’ | ![Image](image) | • Tin factory. | • Conservation Reuse | • Ecomuseum center.  
Protect the original structure.  
Representation of the tin factory. |
| Storage ‘B’ | ![Image](image) | • Lub Storage (Lubrication Oil Storage).  
The south side is the enclosing brick wall and the ruins of the oil line foundation. | • Conservation Reuse | • Exhibition for the history of foreign companies in Tamsui in the 19th and 20th century.  
Protect the original structure  
Representation of the Lub Storage. |
| Storage ‘C’ | ![Image](image) | • Kerosene Case Storage.  
Each roof truss has 5 vertical joists and 6 slanting joists. | • Conservation Reuse | • Place for public activities.  
Protect the original structure.  
Representation of the Kerosene Case Storage. |
| Storage ‘D’ | ![Image](image) | • Benzine Storage. | • Conservation Reuse | • Place for public activities.  
Protect the original structure.  
Representation of the Benzin Storage. |
| Remain of 60 ton setting tank | ![Image](image) | • Remains  
• Natural ecology | • Environmental Design  
• Ecology | • Preservation of historical site.  
Ecological park.  
Environmental design for victors to explore the ecology. |
| Remain of 200 ton kerosene tank | ![Image](image) | • Remains  
• Natural ecology | • Environmental Design  
• Ecology | • Protect the remains of the petroleum tanks.  
Ecological park.  
Environmental design for visitors to explore the ecology. |
| Remain of 2500 ton oil tank | ![Image](image) | • Remains  
• Natural ecology | • Environmental Design  
• Ecology | • Preservation of historical site.  
Ecological park.  
Environmental design for victors to explore the ecology. |
| Remain of manager’s resident. | ![Image](image) | • Remains  
• Natural ecology | • Ecology | • Maintain the remains.  
Ecological park. |
| The disappeared landing stage of the port | ![Image](image) | • Remains  
• Natural ecology of Tamsui River | • Environmental Design | • Environmental design for the disappeared landing stage.  
Port for connecting the other eco-museums in Tamsui by river. |
| The embankment | ![Image](image) | • Remains  
• Natural ecology of Tamsui River | • Ecology  
• Environmental Design | • Repair the original landscape..  
Environmental design for the symbol of the embankment |
| The disappeared oil pipe | ![Image](image) | • Remains  
• Natural ecology of Tamsui River | • Ecology  
• Environmental Design | • Representation of the ruins of the oil line foundation.  
Environmental design for the oil line. |
The strategic principles required to conserve the Shell Oil Company Storage can be broken down into five functions: (1) Sustainability. (2) Integration. (3) Participation. (4) Process (5) Viability. The rules below should also be followed.

(1). The heritage site should be connected to the eco-museums in Tamsui by both river and walkways.

(2). The site planning should incorporate the remains of the landscaping and architecture.

(3). The public should be able to experience activities connected with the history of the site, while at the same time contributing to its upkeep.

(4). The ecology in this region must be protected.

(Fig.8) The Concept of the Shell Oil Storage Eco-museum.

The Shell Oil Storage Site should take into account the whole geographical setting of the region. To the above suggestions we should add locations for expositions, such as the historical remains of the Shell Oil Storage, as well as recover and preserve the remains of any machines and turn the whole site into a heritage museum. The disappeared landing stage of the port, the embankment and the oil line should have monuments reflecting the images of the past.

4. CONCLUSION

This paper analyzes the inter-related aspects of the history, the business agreements, the architectural design and the landscape of the Shell Oil Company Storage Site. Then it discussed
the strategy for environmental sustainability of the Shell Oil Storage Site and connects the environmental sustainability and the preservation of a cultural heritage in an eco-museum.

The historical relevance of the Shell Oil Company Storage is unique in its time and place. In 1870, Jardine Matheson & Co rented the land and built houses. They were followed by the Milisch and Dodd Companies then, in 1897, Lapraik Cass & Co. became the agent of the Shell Transport & Trading Co. Ltd. In the 1900s, the Shell Transport & Trading Co. Ltd, Jardine, Matheson & Co. and Samuel Samuel & Co. Ltd. were all established in Paitou. In 1910, the Shell Transport & Trading Co. Ltd changed its name to the Rising Sun Petroleum Co. Ltd. The site was taken over by the Japanese Government during the Second World War for military purposes. In 1946, the National Property Administration took over ownership of the site, which was being used mainly as storages. In 2002, the buildings were finally designated an historical heritage site and donated to the Tamsui Community University.

In the author’s opinion, the landscape and remains should be combined as naturally as possible. The sustainability of the design must include not only the conservation of the cultural and historical relics but should also enhance the environment. The design strategy must support the historical preservation of the Shell Oil Company Storage Site and the rebirth of this endeavor should incorporate as much of the previous landscaping and buildings as possible. A representation of the site should be displayed in the Paitou eco-museum for inclusion with the other historical heritage areas in Tamsui.

REFERENCES:


Davison, James W. (1972). The island of Formosa, past and present: its history, people, resources, and commercial prospects.


Hong Kong Daily Press. (1876). The Chronicle & directory for China, Japan, & the Philippines, (with which is incorporated the "China directory," for the year 1876.Hong Kong: Hong Kong Daily Press.


Huang, Fu-San. (1982). Qingdai Taiwan Waishang zhi Yanjiou: Meilishi Yanghang Shang (The Research of Milisch & Co. in Taiwan in Qing Dynasty) Taiwan Fengfu (Journal of The Taiwan Folkway), 32(4), pp.105-136.


http://architronic.saed.kent.edu/v4n3/v4n3.02a.html.


Taipei Tingbao. Number 809, Sep.1, 1909, announcement number 88.

Taiwan High Court. (1995). Taiwan Gaodeng Fayuan Minshi Panjue: Bashisi Nian Chongzaizi Dierhao. (The Judge of Civil Affairs: The Shell Oil Company in Taiwan High Court in 1995)


Taiwan Historica. (1994). Taiwan Sifa Wequan Plan.( Taiwan Private Law in Qing Dynasty) Nantou: Taiwan Historica.

Taiwan Zongdufu Fangweibenbu Fangkongbu. (1944). Zhaohe shijionian zi shihyue shierri zhi shihyue xhiiqiri bemdao kongxi zhuangkuang (The aircraft bombed Tamsui in 1944).


