

SIA BOEY

INTEGRATED SITE MANAGEMENT PLAN



A JOINT PROPOSAL BY

PENANG DEVELOPMENT CORPORATION
GEORGE TOWN WORLD HERITAGE INCORPORATED

1. Introduction

1. 1 Background

The Sia Boey site is the Komplek Tun Abdul Razak (KOMTAR) Phase 5 development project by the Penang Development Corporation (PDC). This project envisions creating public spaces emphasizing the concepts of “place-making” and “connectivity.” It will include an LRT station and an elevated urban green connector that joins the site to the rest of the Komtar complex. The site is to be in line with the George Town World Heritage Listing, while complementing PDC’s plans to revitalize the Komtar, 1st Avenue, and Prangin Mall area and make it the socio-civic centre and business hub of the state.



Figure 1 Satellite image of George Town indicating Sia Boey in red.

In 2016 the Centre for Global Archaeological Research of Universiti Sains Malaysia (CGAR) conducted preliminary archaeological investigations after a granite structure was uncovered during the construction of the canal bypass on the site. Mr. Marcus Langdon was appointed to conduct the historical study of the site. George Town World Heritage Incorporated (GTWHI) was appointed by Penang Development Corporation as the Project Manager of the Sia Boey Archaeological Site through a letter dated 8 August 2016.

The Site was an important early trading hub in George Town. It contains a 19th century market hall and several shop houses, which embody the socio-economic activities that have taken place since the 1870s. These activities were centred around the Prangin Canal, first built in 1804. Sia Boey has traditionally hosted the Hungry Ghost Festival and contains a shrine used by the local community. The discovery of the archaeological sites in January 2016 has put the Komtar Phase 5 development on hold in order to create a plan for the development and heritage conservation to coexist. The whole site has since been closed to the public.



2. Objectives

The objectives of this Integrated Site Management Plan are the following:

1. To facilitate the coexistence of development and heritage conservation
2. To revitalize the Sia Boey area's identity as a vibrant social centre for George Town
3. To enhance Sia Boey for the local community and reinstate it as the entrance to George Town
4. To include the proposals from various stakeholders into one management plan

3. Background

3.1 Historical Background

This area is a significant landmark of George Town as it was a busy trading hub centred around the canal, which was used to transport goods from the pier to the inner part of the city. The canal was built in 1804 by excavating and straightening Prangin River. It was used as a defensive ditch during the Napoleonic Wars and was considered to be the boundary of George Town. In fact, the Hokkien name "Sia Boey" as well as the Malay name "Ujong Pasir" both mean "end of the village." The canal was originally 50 to 80 feet wide, allowing small vessels to transport goods into town, but was gradually narrowed to its current width in the early 1900s. A lock was built in the mid-1880s, around the same time the cast iron Sia Boey market hall and drinking fountain were constructed. There was also a police precinct from the early 1800s to post-World War II.

Sia Boey remained a bustling market until a few years ago. In the mid-1800s, the Hokkien community formed an urban village around the Prangin Canal and made it into a busy wholesale hub. This activity is still evident today in the immediate vicinity of the site. Though the Hokkien were the main traders in Sia Boey, other communities such as the Malays, Indians, and Acehnese also used the market and shop houses, making this area a truly vibrant multicultural trading district.

3.2 Statement of Significance

The following is a summary of significance assessments conducted in May 2012 and June 2016.

The site has **historical significance** as the boundary of early George Town and a trading hub. Both the market and the canal contribute to its historical significance: the former due to its role in trade, the latter due to it being a link between George Town and the rest of the world (via the sea), and its place in the early transport network.

The canal also gives the site **technical and scientific significance**, as a feat of engineering, as important historical transportation and flood mitigation methods, and due to the sluice gate, which is unique in Southeast Asia. The site has **archaeological significance** from its two existing archaeological sites and its archaeological potential, including but not limited to, a tramway line (1898–1921), a bathhouse, a bridge, and a playground.



The site has high **aesthetic and architectural significance** thanks to the shop houses, the market, and the numerous trees. The Sia Boey market hall was constructed in the design and style distinct to markets built in the 1870s. Its cast iron structure and wooden louvres are important architectural features. Though other markets in George Town were built in this style – namely, the original Chowrasta Market – Sia Boey Market is the last one to remain. The shop houses are of the Southern Chinese Eclectic Style (1840s–1900). Finally, the trees on the site contribute to the aesthetic value of the site, especially those that are growing out of the derelict shop houses.

The site has **intangible social and spiritual significance** as a multicultural trading hub and religious location. The Festival of the Hungry Ghost has been held there since the 1850s. It is also on the Thaipusam route, a traditional Hindu festival during which devotees form a procession from Sri Muthu Mariamman Temple to the Waterfall Hilltop Temple. There is a small local shrine (Dato Kong) on the site, associated with a large tree across the canal from the market building; it is unclear at this time how many local communities pray there.

Items and practices which contribute **strongly** to the heritage values of the site and should be conserved and interpreted using best practice heritage management:

- The canal: the structure, construction, and building materials, as well as its role as the boundary of George Town/the George Town World Heritage Site.
- The market hall and its use as a market.
- The shop houses.
- The street pattern, the curve in the shop houses.
- The historical boundary of the old town and new suburb.
- The yearly Hungry Ghost festival.
- Its role in the Thaipusam route.
- The archaeological sites and potential.

Items and practices which contribute to the significance of the place but which could be **modified** to assist in its sustainability as long as their significance can still be interpreted and understood:

- The view to Penang Hill from part of the site.
- The view to the Temple down Jalan Maxwell.
- The wholesale and retail operations of the shop houses.
- The use of the platforms as a loading and unloading space for the wholesale traders in the immediate vicinity.
- The shrine and its associated tree.

Items and practices which have only **little or neutral significance** for the site:

- The wild trees.
- The use of the market as a mini hawker cafeteria.

3.3 Current Situation

3.3.1 Overall Site Description

The site is approximately 5.45 acres and is bounded by Lebuhraya Carnarvon, Jalan Magazine, Jalan CY. Choy, and Jalan Dr Lim Chwee Leong. It contains the old market of Sia Boey on the eastern side, a row of dilapidated shop houses on the north-western side, two more dilapidated shop houses on the south-western side, and is bisected by a section of the old Prangin Canal. There is a temporary car park west of the site. In addition, there are four pillars from the old bridge across the canal, on the south-east end of the site. There are also a number of trees on the site that contribute to its aesthetic value.



LEGEND

1. Canal Bypass
2. Prangin Canal
3. Market Hall
4. Shop Houses
5. Shop Houses
6. Parking Lot
7. Shrine
8. Archaeological Site A: Old Canal
9. Archaeological Site B: Police Barracks



3.3.2 The Market

The market is located on the western side of the site. It is composed of two parts: one with built in market stalls (southern portion) and one with open space that has previously been used for parking (northern portion). It is mostly intact: the cast iron structure and trusses, granite steps, and stalls are all in good condition. Most of the wooden louvres remain, though some on the northern side are missing. A section of the roof is also missing. It has been cleaned up and is being maintained in preparation for the next stage of planning.

The market has aesthetic and historical significance in George Town. The design and style is similar to other markets from the late nineteenth century, namely the original Chowrasta market nearby. Of particular note are the wooden louvres used for natural lighting and ventilation, and the cast iron structure, which was imported from A. Handyside, a British company famous for constructing bridges, prefabricated market halls, and the iconic British red post boxes. It is also significant as it is the only such market left in Penang; very few Handyside prefabricated market halls remain in the world.



Figure 3 Top left: northern entrance. Top right: exterior of the southern portion (from across the canal). Bottom left: interior of the northern section. Bottom right: interior of southern section. (January 2017)



3.3.3 Prangin Canal

The canal bisects the entire site in a SE–NW direction; it is approximately 220 meters long. It is constructed from granite with a timber foundation. A canal bypass was built in 2015–2016 to the east of the Prangin Canal. This uncovered a granite structure which was later investigated by archaeologists at USM.

The water in the Old Prangin Canal is currently stagnant, making it an ideal breeding ground for mosquitoes. The water and the canal need to be urgently maintained in order to prevent hygienic issues.

3.3.4 The Shop Houses

The shop houses at Sia Boey were typically used for wholesale operation, though a few were also retailers. There are two clusters of shop houses, the first contains two houses located along Jalan Magazine. The second contains 22 houses in a curved configuration along Jalan Maxwell, reflecting the old street alignment. They are currently being supported by steel scaffolding.



Figure 4 The second cluster of shop houses. This image shows the slight curved configuration. (January 2017)



Figure 5 The current condition of the exterior (left) and interior (right) of one of the shop houses at Sia Boey. (January 2017)

Since being abandoned in 2004, the shop houses in Sia Boey have deteriorated heavily and are in poor condition. Vegetation is growing inside the building, which has negatively impacted the buildings



Six (6) shophouses have been damaged between January and October 2017.

Shophouse A8 was damaged the week of January 23rd. The façade was damaged in a storm when the beam above the window detached.

Shophouses A17 and A18 were damaged the week of April 24th. The party wall collapsed due to vegetation growth, damaging part of Shophouse A18's façade (A17's was already collapsed).

Shophouses A5, A6, and A7 were damaged the week of September 18th. The remaining roof structures and the top of the party walls collapsed (possibly due to storms). The collapse damaged the supporting steel beams.



Figure 6 Shophouse A8 (January 2017)



Figure 7 Shophouses A17-18 (April 2017)



Figure 8 Shophouse A5 (October 2017)

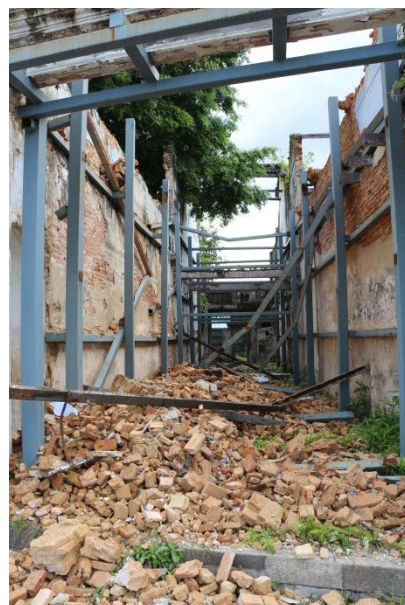


Figure 9 Shophouse A6 (October 2017)

3.3.5 The Archaeological Sites

There are two archaeological sites dated to the early East India Company Settlement (late eighteenth to early twentieth century): Site A consists of a granite structure, which was found to be part of the old canal, and Site B is the Police Barracks.

Site A: Old Prangin Canal

The two phases of investigations (2016 and 2017) at Site A uncovered two intersecting granite walls connected to a canal lock. The canal lock is semi-oval, composed of 35 granite slabs forming a platform of about 10m by 2m. Wall 1 is perpendicular to the canal and is approximately 15m in length, Wall 2 curves away from the canal and is approximately 40m in length. The walls were identified as part of the lock system's accompanying basin or "feeder pond." The timber foundation of Wall 2 was analysed and radiocarbon dated: the timbers used were mangroves and Nibong, and date between 1795 and 1940.

CGAR conducts a bi-weekly maintenance program as a temporary conservation measure. The maintenance includes:

- De-watering Site A – removing algae and blanket weed from the water
- Larvicide application – to reduce and control disease-causing insects, such as mosquitoes
- Canal wall biofilm removal and stain cleaning

Full conservation of the site can not take place until Prangin Canal is restored and its water cleaned, as water from the Canal leeches into the archaeological site.



Figure 10 Archaeological Site A (October 2017)



Figure 11 Archaeological Site A (January 2017)

Site B: Police Barracks

The CGAR researchers excavated 32 square meters of Site B, which uncovered a building structure made of clay brick, roof tiles, and floor tiles; bricks and pottery fragments were also found on the site. The brick analysis showed there were two types bricks used in this building: one thicker (6–8cm), more porous, and with coarse sand as temper, the other thinner (3–4cm), less porous, and with refined sand as temper. The pottery was mostly of Chinese origin, though there was also some European pottery and local earthenware. This site was not scientifically dated due to a lack of reliable dating samples.



Figure 12 Archaeological site B (March 2017)



On January 13th 2017, a semi-permanent structure was erected over Site B. This structure protects the site while leaving it accessible for further research if needed.



Figure 13 The new semi-permanent structure over Site B.

3.3.6 The Shrine

The shrine is located along the southern bank of the canal. Oral evidence indicates that this shrine is spiritually and historically significant to the local wholesalers and traders. The 2014 Heritage Management Plan report found that the main shrine altars were constructed c. 1950s. Behind it is a large tree that the local people believe has spiritual value associated with the shrine.

3.3.7 Landscape and Vegetation Growth

The landscape of Sia Boey is one of its defining features, and should be considered throughout the management plan. Some trees have grown out of the shop houses, contributing to the buildings' uniqueness.

There are two areas where vegetation growth is troublesome: inside the buildings and inside the canal. The growth in the buildings is composed of weeds and trees, which affect the buildings' integrity and strength, and compromise its safety. Water spinach is the main growth inside the canal. The growth rate must be monitored, and a maintenance plan put in place in order to mitigate its impact on the built environment.



Figure 14 The trees growing out the shop houses give the landscape aesthetic interest (January 2017)

3.3.8 Traffic and Parking

Traffic is currently a significant issue at this location as it is the transition point and bottle neck between George Town inner city and Tun Dr. Lim Chon Eu Expressway. The LRT aims to address this issue by providing an alternative to driving in Penang.

There is currently a temporary parking lot east of the site. The Komtar Phase 5 plan does not include a parking area as the objective of the transportation hub is to reduce the vehicle volume inside George Town. However, it would also create some minor problems for those who would like to use the LRT station as the Railway Park and Rides location.



3.4 Requirements

3.4.1 Owner's requirements and Proposed Uses

The site is currently owned by Penang Development Corporation. They have proposed to conserve Sia Boey and develop an urban park, prioritising the adaptive reuse of heritage buildings and providing ample public space.

The owners note their desire to:

- Secure the future of Sia Boey through restoration and adaptive reuse.
- Develop the site into an attractive place to bring back the liveliness of Prangin Mall, Komtar, and 1st Avenue (Komtar Phase 5).
- Incorporate the LRT station, as mentioned in the Penang Transportation Masterplan.
- Consider carrying capacity.
- Create a sustainable environment for new businesses.
- Create green and environmentally friendly spaces.
- Improve connectivity through green corridors, shaded walkways, a shuttle service and other creative methods.
- Create a cleaner, safer and more attractive business district.
- Provide a steady and reliable funding source for supplemental services and programs.
- Respond quickly to changing needs of the business community.
- Potentially increase property values, improve sales, and decrease commercial vacancy rates..

To achieve the above:

- Conserve and restore the existing structure of the old shop houses and the market hall.
- Conserve and rehabilitate Prangin Canal.
- Retain and preserve the existing trees on the site.

3.4.2 Statutory Requirements

Issues relating to statutory controls include:

- Height control and harmonizing with the surrounding development and with the George Town World Heritage Site. The proposed development's height should be appropriate to create a harmonized skyline and to avoid blocking the view in the George Town inner city area.
- As most of the land in George Town is developed, green space or green concept of development is encouraged by the state government.
- The transportation plan needs to be considered in the development and conservation plan of Sia Boey.
- Promote pedestrian connectivity to encourage the people to walk and use public transport rather than private vehicle in order to create a sustainable and green environment.
- Control the heavy traffic around the site.

4. Management Strategies and Recommendations

The ultimate objective is to protect the site's heritage buildings and practices while promoting a sustainable and liveable public space. This Integrated Site Management Plan does so by instituting short term, medium term, and long term strategies. Figure 15 shows the Concept Plan for Sia Boey which indicates the overall development and conservation plan in Sia Boey.

Concept Plan

LEGEND

1. Bypass Canal
2. Prangin Canal
3. Market Hall
4. Archaeological Sites
5. Interpretive Centre
6. Landscaping
7. Community Space/Event Lawn
8. Shop Houses
9. LRT Station
10. Green Connector
11. The Shrine

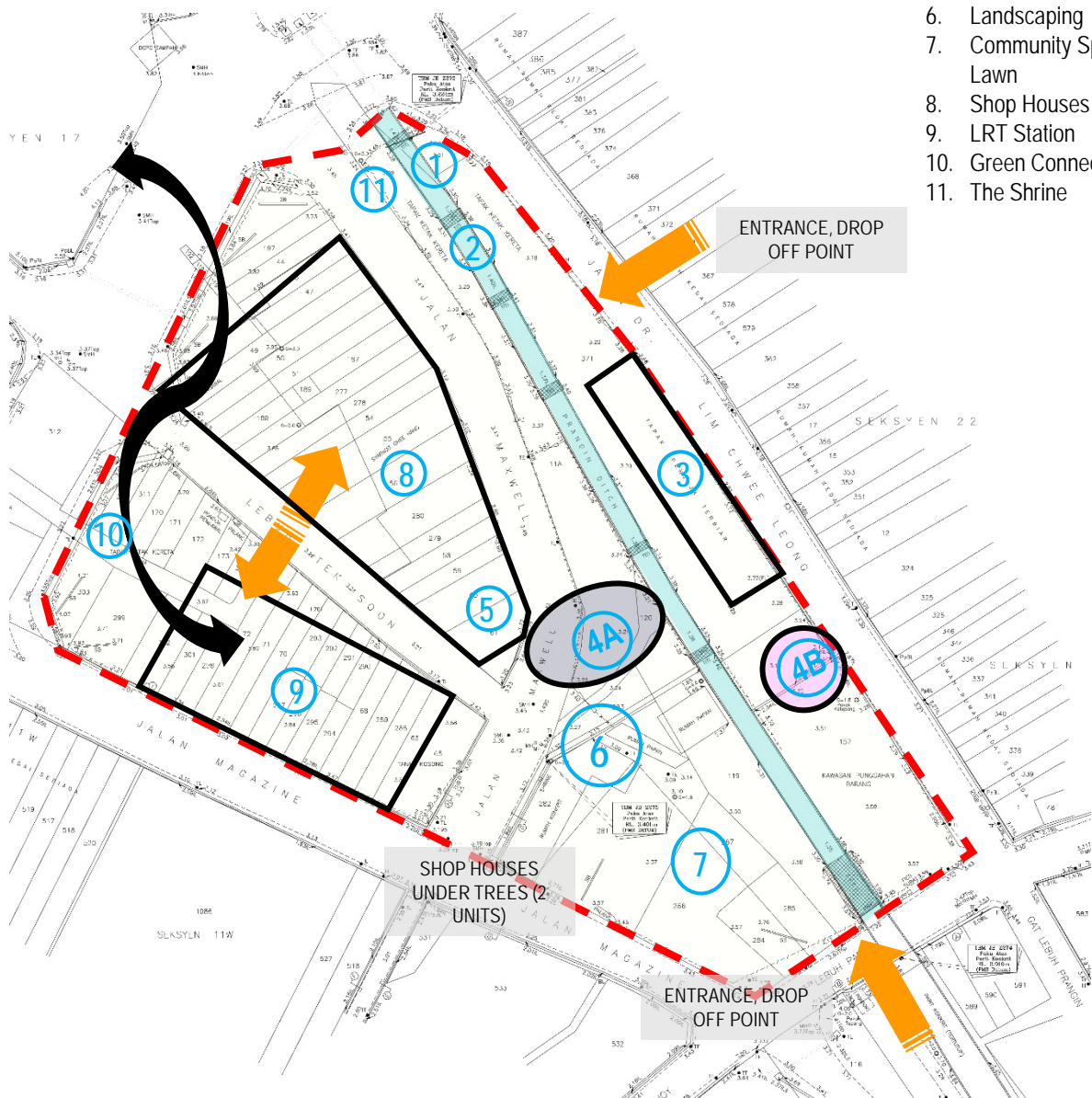


Figure 15 Concept plan for Sia Boey Site



4.1 Canal bypass

Maintenance by the City Council (MBPP).

4.2 Prangin Canal

The Prangin Canal will be Sia Boey's central water feature; it should be a promenade and leisure space. The landscaping around Prangin Canal should be minimal, emphasizing open spaces. There will need to be regular maintenance of the canal water to keep it clear, reduce smells, and repel mosquitoes.

During restoration works, GTWHI will monitor the desludging of the canal in order to collect any cultural artefacts present in the deposit. They will clean, record, and catalogue all the artefacts, and secure appropriate long-term storage.

The four bridge pillars at the southern end of the canal should be assessed and restored if needed. This can be used as an entrance to the park.

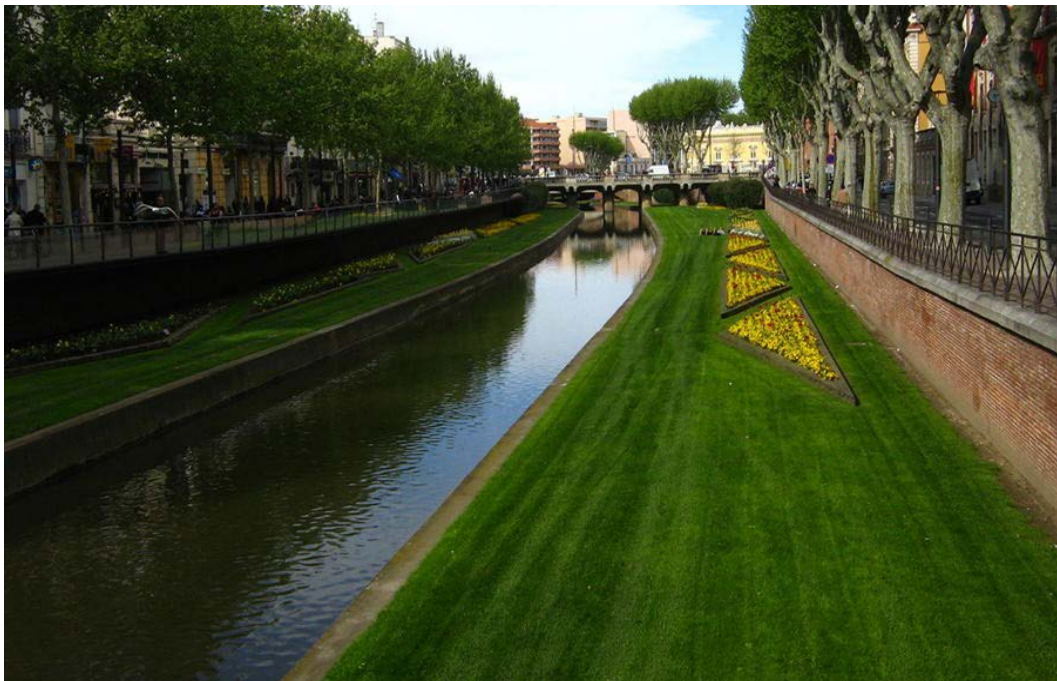


Figure 16 Canal du Midi in Perpignan, France

4.3 Market Hall

The Market Hall should be renovated and made into a flexible space that can be used to host temporary or seasonal markets, cultural events, and educational events in relation to the interpretive space. The market hall's unique architectural features should be emphasized during restoration. These include the cast iron structure, wooden louvres, and entrances.

The restoration of the Market Hall should follow the conservation guidelines of the George Town Special Area Plan, the primary principle of which is based on the *Australia ICOMOS Burra Charter*: "a cautious approach to changing as much as necessary but as little as possible" (Burra Charter 1999). The guidelines can be summarized as follows:

- No building or structure shall be altered or demolished if there is any conceivable way of preserving it in its original or current condition.
- The existing structure should be retained by strengthening and repairing the structural elements, which should be done in the most unobtrusive way possible, using original methods and materials when possible, or matching with materials of similar properties.
- Selective replacement may be considered only when absolutely necessary. Total reconstruction is prohibited.
- If structural elements need to be repaired or replaced, their features shall be retained
- Further information is available in Part D of the Special Area Plan (Guideline for the Conservation Area and Heritage Building in George Town World Heritage Site).



Figure 17 19th century cast iron market in Valence, France

4.4 Archaeological Sites.

Archaeological Sites A and B should be integrated into the landscape of the Sia Boey Urban Park in order for the public to appreciate them. The results of the archaeological investigations must be assessed before making a final decision on interpretation.

An Archaeological Advisory Panel has been formed, composed of experts from the region to advise on all matters related to the conservation, interpretation, and management of the Sia Boey archaeological sites. One issue of particular importance to be deliberated by the Panel is the conservation and physical presentation of Site A. In its current state, it presents a safety and hygienic risk as a water-filled trench. Some acceptable solutions include hardening the site with viewing platforms, partial backfilling, or sloping the trench walls; any solution chosen must address the issue of water retention.



Figure 18 An example of a hardened archaeological site: Templo Mayor archaeological site, Mexico City.

4.5 Interpretive Centre

The Sia Boey Urban Park should include an Interpretive Centre, ideally located in one or more of the shophouses, which will help recall Sia Boey's long history. The major themes of this space should revolve around Sia Boey as the historical entrance to George Town, the trading activities, the engineering of the canal, and the archaeology of Sia Boey. The Interpretive Centre should be related to the two archaeological sites.

At least one excavation pit at Site B can be left open for educational purposes. The public can then learn about archaeology and why it is important to conduct in George Town. Programming at Site B can be designed to help school children understand heritage work, and instil in them a sense of ownership and pride in George Town's history.

Additionally, there can be interpretive signage, lectures, and/or workshops about:

- Archaeology and conservation (generally, in George Town, and at Sia Boey)
- The establishment of the Hokkien urban village and the names "Sia Boey" and "Ujong Pasir" ("end of village")
- The market, the shop houses, and the historical trading activities
- About the canal, its history and engineering
- About the police barracks: activities, anecdotes, individuals.



Figure 19 Young Archaeologist Program at Fort Cornwallis, May 2017

4.6 Landscaping

An overall landscape masterplan should be created for the entire site, including the following components.

The landscaping of the park should be kept simple to emphasize green open space. This may include cultivating a lawn, retaining the existing trees, and adding a few more for shading where needed. The southern portion of the site can for example be made into a large open "Event Lawn" that is flexible enough for cultural events.



Figure 20 Rot Fai Park in Bangkok, Thailand

The archaeological sites should be emphasized in the landscape. This can be done by creating a contrast; for example, by contrasting the ground level: keep the archaeological excavation open at a lower level than the rest of the park. The site will need to be made secure to ensure the safety of the public. It is also possible to emphasize the sites by using modern materials around it, as was done in Cartagena, Spain (Figure 21)



Figure 21 These roman ruins in Cartagena, Spain, are several meters below the current road level. A deck was built around them and a modern protective cover installed over them in 2011.

4.7 Community Events

Communities must be able to continue using Sia Boey for events and festivals that have traditionally been carried out here. The "Event Lawn" would thus be arranged to allow for such occasions such as the Hungry Ghost Festival or Thaipusam



Figure 22 The Thaipusam procession around Sia Boey



Figure 23 Preparations for the Hungry Ghost Festival, organized by the local community (Photo by Tong Wing Cheong, GTWHI 2015)

4.8 Shophouses

Some of the shophouses may be retained in a semi-dilapidated state as a retrospective on conservation issues and the evolution of Sia Boey from a historical trading hub to a public park. The shophouses must however be strengthened and the deterioration process slowed to ensure the safety of the public. In addition to being an educational tool, it will add aesthetic interest to the park; to this end we recommend preserving the trees growing out of the shophouses, as was done at the "Tree House in Taiwan" (Figures 24 and 25).

Other shophouses should be restored entirely. Their use can be determined at a later date.



Figure 24 Side view of the "Tree House" in Taiwan



Figure 25 The roof of the "Tree House" in Taiwan

4.9 LRT Station and Elevated Urban Green Connector

The “open space” and “green” concepts should be carried over to the LRT Station design proposed by the Penang Transport Master Plan. Furthermore, only retain the northern part of the Elevated Urban Green Connector (the portion that connects to the rest of the Komtar Complex) as the southern portion will interfere with the open lawn.



Figure 27 Mexico greenway



Figure 28 Station concept for Edmonton, Canada

In addition, the new LRT could be built around and above the two separate ruined shop houses, as was done with the Saint Pierre Cathedral in Geneva, Switzerland (Figure 27)



Figure 29 The Saint Pierre Cathedral in Geneva, Switzerland. The modern cathedral was built on top of the ruins of the old building, which are on display for the public.



5. References

The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance 1999

Sia Boey Heritage Management Plan Preliminary Draft 2012

World Heritage Site Special Area Plan George Town 2016

Penang Development Corporation's *Komtar Elevated Urban Green Connector Proposal* 2016

USM Reports of Archaeological Activities 2016

Mr. Marcus Langon's *Historical Study* 2016

Architect OA *Komtar LRT Station* 2016

6. Contact Information

Please direct any questions or comments about this integrated site management plan to the George Town World Heritage Incorporated Sia Boey team at:

siaboey@gtwhi.com.my

The Sia Boey Integrated Site Management Plan was produced by George Town World Heritage Incorporated

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