

For discussion  
on 29 May 2014

BOARD PAPER  
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**MEMORANDUM FOR MEMBERS OF THE  
ANTIQUITIES ADVISORY BOARD**

**ARCHAEOLOGICAL WORK AT THE SACRED HILL AREA FOR  
THE SHATIN TO CENTRAL LINK (SCL) –  
TAI WAI TO HUNG HOM SECTION (TAW-HUH)**

**PURPOSE**

This paper serves to update Members on the progress of the archaeological work at the Sacred Hill area arising from the Shatin to Central Link (SCL) project.

**BACKGROUND**

2. The project of SCL, initiated by the Mass Transit Railway Corporation Limited (MTRCL), is a designated project under the Environmental Impact Assessment Ordinance (EIAO) (Cap. 499). An archaeological survey-cum- excavation<sup>1</sup> in the Sacred Hill (North) area was recommended in the approved Environmental Impact Assessment report. The boundary of the archaeological survey-cum-excavation was marked out based on the studies of photos and maps of historic archives, geological and topographic information, findings of field inspection as well as the results of previous archaeological surveys. Dr Liu Wensuo, the archaeologist engaged by the consultant of MTRCL, was granted a licence to carry out the above mentioned archaeological work by the Antiquities Authority after assessment of the licence application by the Antiquities and Monuments Office (AMO) and with the support of the Antiquities Advisory Board (AAB). The archaeological survey-cum-excavation commenced in November 2012 and was completed in December 2013. In the intervening time, four briefs were submitted to the AAB, introducing the latest progress, preliminary assessment of the findings and the way forward. AAB also visited the site on 27 November 2013 and discussed the preservation of the archaeological findings at the meeting held on 4 December 2013.

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<sup>1</sup> Archaeological survey-cum- excavation is commonly conducted before construction within a specified area with archaeological potential. The archaeological survey is to define the precise horizontal extent and the nature of the archaeological deposits while the excavation is applied to this confined area to retrieve the archaeological data completely.

3. The key findings were presented in an interim report prepared by the licensed archaeologist. The interim report has been uploaded onto AMO's website for public viewing at <http://www.amo.gov.hk/form/Interim%20Report.pdf>. Find-processing is still underway and the final report is expected to be available by the end of this year.

4. Further to the archaeological survey-cum-excavation, AMO initiated and MTRCL agreed that an archaeological watching brief (AWB)<sup>2</sup> be arranged at the launching shaft area (LSA) owing to the discovery of coins dated to the Song dynasty at the LSA in early September 2013. The area for AWB was expanded in April 2014 as a result of the yield of Song-Yuan archaeological features<sup>3</sup> within the LSA. The AWB is also conducted by Dr. Liu Wensuo with licences issued in December 2013 and April 2014 respectively. A brief to report the discovery of Song-Yuan archaeological features was submitted to the AAB in April 2014. AAB also visited the site on 2 May 2014. The AWB will continue and is anticipated to be completed in the third quarter of 2014.

## **ARCHAEOLOGICAL DISCOVERIES AND WORK PROGRESS**

### Survey-cum-Excavation (Phase I)

5. Three cultural layers<sup>4</sup>, comprising fill layer of 1920s-1960s, late Qing dynasty- Republic of China period and Song-Yuan dynasties were identified. Remains of granite structures of recent buildings, cultivated fields, wells and ponds of late Qing-Republic of China period were unearthed. For the Song-Yuan layer, discoveries included truncated burials<sup>5</sup>,

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<sup>2</sup> "Archaeological watching brief" (AWB) refers to any archaeological work conducted within a project for non-archaeological purpose. AWB would be conducted if the archaeological potential of the specified area is low, or if it is estimated that the archaeological remains within the area have already been disturbed. AWB allows archaeological methods to be applied by archaeologists once any archaeological remains are identified in the course of the earth movement works of the development project. A proposal is required to specify the aim, method, and potential mitigation measures for the AWB. AWB could turn into an archaeological excavation if significant archaeological remains are discovered.

<sup>3</sup> "Archaeological features" are traces of human activities discovered in an archaeological context, such as walls, boulder foundations, tile paved floors, pits, trenches, truncation of layers, etc.

<sup>4</sup> "Cultural layer" in field archaeology is a unit of deposition in terms of soil color, soil nature and the artefacts found among it. Layer is the basic unit in studying the chronology of a site. Usually, a layer on top of another was deposited in a relatively later period to help determine the relative dating of the cultural sequence of a site. The study of the artefacts within a layer would help identify the date of the past activities at the site.

<sup>5</sup> In Hong Kong, most of the burials are pit burials that grave goods with the deceased or urn burials containing bone ash placed inside a pit. The above-ground remains of these burials were

remnants of collapsed building structures<sup>6</sup>, wooden piles, wells, remains associated with lime production as well as coins and scattered ceramic sherds. Although the cultural remains and archaeological features were generally disturbed by the development in the past, the square shaped well of Song-Yuan period was found in good condition and will be preserved in-situ.

#### AWB at LSA (Phase II)

6. At present, most of the archaeological work in the LSA has been completed except the area of T1. The remnants of major features already identified include compact surface, house foundation, wall structures, a square shaped well and an open drainage. Besides, two pit structures with boulders at the upper part and a hollowed wooden base were found. The pit in T1 is a circular structure (Photo 1) while the other one located outside T1 is in a twin circular shape (Photo 2). The alteration of the original stable deposition environment due to this archaeological excavation has made on-site preservation of the wooden bases impossible. The wooden base of the pit outside T1 has been retrieved and will be moved to the laboratory of the Central Conservation Office of the Leisure and Cultural Services Department for conservation treatment, while the arrangement for handling the wooden base of the pit inside T1 is still being planned. The archaeological work in T1 will continue.

#### AWB outside LSA (Phase III)

7. Since the house foundation unearthed at T1 extends outside the LSA, archaeological work is being conducted at the ventilation area and Adit C area to fully expose the living features so as to assess their significance. At present, archaeological deposits in relation to the living features as already identified in T1, such as stone blocks, open drainage, clusters of broken tiles and ceramic sherds, have been unearthed (Photo 3). The archaeological work at other areas of Phase III is also underway. The whole exercise is anticipated to be completed in the third quarter of 2014.

### **SHEET PILING PROTECTION**

8. In order to facilitate the protection of the exposed archaeological

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usually destroyed. Owing to the acid nature of soil in Hong Kong, skeleton is also not commonly found in archaeological work in Hong Kong.

<sup>6</sup> Building feature referred to any structural remains found in an archaeological excavation that are related to architecture. In archaeological excavation, the above ground structure of a building would usually have collapsed or have been destroyed; common remains are remnants of foundation trenches, boulder/granite slab foundations, tiles, paved floors, etc.

features and cultural relics<sup>7</sup> in T1 and the continuation of construction works in the LSA, MTRCL has presented a sheet piling proposal in a briefing to the AAB on 15 May 2014.

9. The proposal includes sheet piling works for retaining the T1 area (Annex A), and involves the following:

- Shoring system for Launching Shaft,
- Monitoring proposal plan and permissible settlement and vibration parameters for sheet piling works,
- Proposed plant catalogue for installing sheetpile cofferdam, and
- Reference monitoring records.

10. In addition, in consideration of site safety and stability of the areas for the AWB in the ventilation area and Adit C area, MTRCL also proposed to install diagonal struts and waling, which involves the following:

- Shoring system for Adit C,
- 50m Monitoring Zone for Adit C, and
- Shoring system for Ventilation Area.

The details are in Annex B.

## **ADVICE SOUGHT**

11. Members are invited to note the progress of the archaeological work so far and to offer comments on the sheet piling proposal for the T1 area at the LSA, Adit C and the Ventilation Area.

Antiquities and Monuments Office  
Leisure and Cultural Services Department  
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<sup>7</sup> “Cultural relic” refers to any object that was created or modified by human beings. The most common artefacts from archaeological excavation are ceramic sherds, no matter in site of pre-historic or historic period. Regarding the Antiquities and Monuments Ordinance (Cap.53), “Relic” means (a) a movable object made, shaped, painted, carved, inscribed or otherwise created, manufactured, produced or modified by human agency before the year 1800, whether or not it has been modified, added to or restored after the year 1799; and (b) fossil remains or impressions.



Photo 1: A circular-shaped pit in T1.



Photo 2: A twin circular-shaped pit located outside T1 and a photo of the wooden structure inside the pit.



Photo 3: Archaeological deposits identified during AWB at the ventilation area outside T1.