

## 7. CULTURAL HERITAGE IMPACT ASSESSMENT

### 7.1 The Study Area

#### *The Study Area Defined*

7.1.1 The Whitehead Study Area lies at the eastern end of Ma On Shan on the southern side of Tolo Harbour (Figure 7.1). The Study Area comprises the following; the rocky headland of Wu Kwai Sha Tsui, the area referred to as North of Lee On (which consists of the low agricultural lands) and flanking beaches which link the promontory to the Ma On Shan land mass and the Lee On area to the south with its associated roads and structures (Figure 7.2). Photographs showing general views of the Study Area are provided in Figures 7.3, 7.4 and 7.5.

#### *Existing Impacts in the Study Area (Figure 7.2)*

7.1.2 A large portion of the Study Area formerly housed the Whitehead Detention Centre, a closed camp for Vietnamese migrants. All structures have been removed from the detention centre, although the concrete platforms are still in-situ and surrounded by chain link fences (Figure 7.3A). The former detention centre occupies much of the land area on the headland; a golf driving range is also present as are large paved vehicle parking areas. An aerial photograph taken in 1978 shows the major land alterations that were undertaken in preparation for construction on the headland (Figure 7.6).

7.1.3 There are only a few existing buildings within the Study Area including occupied and abandoned farm structures and the village of To Tau Tsuen. A road runs behind the beach on the eastern side of the Study Area and leads to Wu Kwai Sha Tsui and the abandoned detention centre. Another road crosses the Study Area leading to the western coastal village of To Tau Tsuen (Figure 7.5B). The southern portion of the Study Area is occupied by Sai Sha Road.

7.1.4 The 1978 aerial photograph shows large portions of the Study Area to the south of the headland under cultivation (Figure 7.6). A similar view taken in 1995 shows less area being farmed and more abandoned fields (Figure 7.7). A substantial portion of the low area which was formerly farm land has been covered with up to 3m of fill and fenced as shown in a 1999 aerial view (Figure 7.8). Small patches of cultivation are still present in the area behind Tai Po Hoi (Figure 7.4B) and behind To Tau Wan (Figure 7.5A). Areas of forest cover occur on the promontory to the east of Wu Kwai Sha Tsui (Figure 7.3B) and in several isolated patches within the Study Area.

### ***Geological and Topographical Background***

- 7.1.5 The geomorphology of the Study Area comprises a substantial headland jutting northwards into Tolo Channel and joined to the main land mass of Ma On Shan by a neck of low lying land. Beach deposits lie on both sides of this neck, which rises to the south.
- 7.1.6 The headland is composed of medium-grained granite assigned by Allen and Stephens (1971) to the Cheung Chau Granite and Ma On Shan Granite and to two phases of Sung Kong Granite. It is characterised as being homogeneous and equigranular. The smaller rocky peninsula to the east of the headland is an outcrop of fine-grained granite.
- 7.1.7 The low lying land to the south of the headland is an area of debris flow deposits formed as accumulations of mass-transported, water-mobilised debris. These are characteristically diverse in composition and poorly sorted. Bore hole data from nearby Nai Chung revealed from 3-6m of cobbles and gravel in a silty sand matrix. Flanking this area of debris flow are areas of Holocene alluvial deposit with Holocene sand bodies formed in the embayments (Geotechnical Control Office 1986).
- 7.1.8 Two additional relevant geomorphological features include an area of fill on the western coast and a small hillock of fine-grained granite located in the eastern portion of the low area, behind Tai Po Hoi beach.

### **7.2 Archaeological Background**

- 7.2.1 No archaeological sites were included in the report of the first Hong Kong Archaeological Survey (Peacock and Nixon 1986). One archaeological site was identified within the Study Area during the recent territory-wide archaeological survey carried out by the Shaanxi Institute of Cultural Relics and Archaeology (1998). Material dated to the Song ( AD 960-1279 ) and Qing dynasties ( AD1644-1911) was recorded at a site to the north of Wu Kai Sha in the low agricultural area south of the headland. Material was recorded over an area measuring 150 x 170m. The finds included 363 porcelain sherds, 68 earthenware sherds and 98 tile fragments in a relatively shallow deposit (max 30 cm.) quite near the surface (-9-38 cm.). Figure 7.9 shows the proposed boundary of the archaeological site.
- 7.2.2 No prehistoric sites have been reported in the Study Area, although Tolo Harbour as a whole is rich in archaeological material from the prehistoric period, for example Yuen Chau Tsai (Island House), the Late Prehistoric site of Sai O (AMO-Ref:0706) to the south east of the Study Area and the Late Prehistoric site of Che Ha to the east of the Study Area. Of particular relevance was the discovery during the recent territory-wide archaeological survey of a Late Neolithic archaeological site (2500-1500 BC) on the island of A Chau, only 1500m. to the west of To Tau Tsuen (Tang Chung pers. comm.).

### 7.3 Archaeological Field Evaluation Methodology

7.3.1 In order to evaluate the archaeological potential of the Study Area it was necessary to implement a sampling strategy. Areas have been identified which are accessible to testing methods, i.e. not covered by concrete or structures or heavily modified due to landscaping and fill. From these areas evaluation units were selected in an attempt to sample all the landforms found within the Study Area.

#### *Archaeological Evaluation Units*

7.3.2 The Units selected for evaluation are the following (Figure 7.9):

##### *Unit 1 The promontory to the east of Wu Kwai Sha Tsui*

7.3.3 This unit comprises a steep-sided headland covered in vegetation and with no apparent evidence of use; it rises to a maximum of +24.9 m. PD. and covers a surface of 300 m by 150 m. The geology is fine-grained granite with a quartzphyric rhyolite deposit. Promontories of a similar elevation (ca. 25m.) in other parts of Hong Kong have been found to have archaeological deposits; for example at Sha Lo Wan and Pa Tau Kwu on Lantau. Small portions of the top and lower slopes of the promontory, which appeared unaltered, were tested.

##### *Unit 2 The hillock at Tai Po Hoi*

7.3.4 A small hill of fine-grained granite (100 x 70 m) rising to +14 m. PD; to the east are the marine sands of Tai Po Hoi and to the east, north and south are alluvial deposits. This feature represents a former island in a once inundated bay. Small hills of this type are frequently associated with historic and particularly prehistoric archaeological deposits. This hill functions as a fung shui hill. Field observation showed the hill to be covered by tended and abandoned graves. The bottom slopes are concealed by fill. As a result, only surface examination of the wooded upper slopes was possible.

##### *Unit 3 Agricultural area north of the fung shui hill*

7.3.5 Low-lying alluvial area (+1m PD) to the north of Unit 2; an area of approximately 200 x 100m. Presently under cultivation and bounded by a stream to the north. A testing programme was carried out to determine if the area had been so altered by fill and leveling as to have no archaeological potential.

*Unit 4 Back beach of Tai Po Hoi*

- 7.3.6 This unit is a narrow strip of marine sand deposit to the west of the road; it is intersected by a stream and modified in places. The area is situated approximately +3m. PD and covers 20 x 150 m. in area. The back beach has been heavily altered by filling in advance of road construction and stream channeling. Testing was undertaken to identify if any portions of the area required further study.

*Unit 5 The western tip of Wu Kwai Sha Tsui and the area of To Tau Tsuen*

- 7.3.7 This included the area north of and adjacent to the village of To Tau Tsuen, portions of which have been modified by hill cutting and fill. Most of the western headland and the area to the north of To Tau Tsuen has been cut and concreted at elevations of +4 to 10m.PD. A small original area was found and tested. The junction of the hill slope and sand bar is unfortunately inaccessible for testing as it is entirely under the concrete and structures of the village.

*Unit 6 The raised beach south of To Tau Tsuen*

- 7.3.8 This unit includes the raised beach marine sand deposits behind To Tau Wan; it extends 600m x 50m. at an elevation of approximately +4m PD. The landform is typical of many prehistoric archaeological sites throughout the territory; testing was designed to thoroughly sample the remaining area of the back beach. Testing was not possible in the area of archaeological potential to the north which is currently under the village of To Tau.

*Unit 7 The central area*

- 7.3.9 This unit consists of an alluvial low area (max. +5.8m PD) under cultivation and adjacent wooded and agricultural land. This area is known to be the site of historic archaeological deposits.
- 7.3.10 Part of the central area is currently covered in several metres of fill. This lies adjacent to the historic site and occupies a landform frequently associated with archaeological deposits. Systematic field testing of the entire area will be required by the AMO to define the nature, depth and extent of the historic site.

***Field Evaluation Methodology***

- 7.3.11 In each of the Evaluation Units the same field methodology was applied, in accordance with Antiquities and Monuments Office (AMO) requirements as set out in the Criteria for Cultural Heritage Impact Assessment. This included the following:

- (a) Surface scanning for archaeological evidence wherever vegetation cover and landscape allowed. Special attention was paid to areas of exposed soil and any natural cuttings.
- (b) Systematic auger testing carried out in each unit, with the number and spacing of tests depending on the size of the unit and the degree of disturbance. The number of auger tests for each unit are as follows:

Unit 1	10 auger tests
Unit 2	none
Unit 3	6
Unit 4	4
Unit 5	4
Unit 6	12
Unit 7	18

- (c) Excavation of test pits measuring 1.5 x 1.5 m. was carried out according to AMO standards. Based on preliminary findings from surface investigation, auger testing and assessment of potential, it was agreed with the AMO that the following test pits be implemented:

- 4 test pits along the sand bar of Unit 6
- 1 test pit in the uncultivated portion of Unit 7

7.3.12 No further test pits were carried out in Unit 7 as this area was tested by the territory-wide archaeological survey.

#### 7.4 Findings of the Field Evaluation

7.4.1 The findings of each task undertaken as part of the field evaluation programme are presented in summary form. The detailed results are presented in Annexes G1 and G2.

##### *Summary of the Field Scan*

7.4.2 Much of the Study Area is covered in dense vegetation, however, field scans were carried out wherever possible with particular attention to lightly vegetated, abandoned and in use agricultural areas and cut stream banks.

7.4.3 The following summarises the results of the field scan:

Unit 1 heavily vegetated; no surface material;

- Unit 2 heavily vegetated; surface material associated with burials only, including modern village ware and porcelain sherds only; as the material is associated with burials no sample was collected (Figure 7.41, bottom);
- Unit 3 completely cultivated; surface material included an undiagnostic village ware rim sherd and two Wun Yiu sherds (Figure 7.10A);
- Unit 4 heavily vegetated and waterlogged; modern garbage only (Figure 7.10B);
- Unit 5 vegetated; no surface material;
- Unit 6 heavily vegetated; modern sherds and garbage only (Figure 7.11A);
- Unit 7 partly cultivated, abandoned fields and heavily vegetated areas; surface finds were numerous and included tile and a number of undiagnostic village ware sherds and two celadon fragments (Song-Yuan Dynasties) (Figure 7.11B).

#### ***Summary of the Auger Testing***

- 7.4.4 Full details of the auger survey results can be found in Annex G1.

##### *Unit 1 (Figure 7.12)*

- 7.4.5 A total of 10 auger holes were carried out on the headland. The tests showed that the area had been heavily altered by borrowing; only a shallow soil deposit over bedrock remains.
- 7.4.6 No archaeological material in the form of artefacts, ecofacts or possible cultural soils were found.

##### *Unit 2*

- 7.4.7 No auger testing was possible in Unit 2; it is a small fung shui hill covered in tenced and abandoned graves.

##### *Unit 3 (Figure 7.13)*

- 7.4.8 Auger testing in this area supported the initial interpretation that fill had been imported to level a previously low, wet area. Multiple layers of agricultural fill were recorded; the farm staff agreed with this explanation.

7.4.9 No archaeological material in the form of artefacts, ecofacts or possible cultural soils were found.

*Unit 4 (Figure 7.14)*

7.4.10 Closer examination indicated that this area has been substantially modified by the road construction and the channeling of the stream. A total of 4 auger holes were conducted in the area between the road and the fill. The data suggests that this area is a former streambed located behind the raised beach.

7.4.11 No archaeological material in the form of artefacts, ecofacts or possible cultural soils were found.

*Unit 5 (Figure 7.15)*

7.4.12 This area has been largely modified due to the borrow area and the desk-based review showed a relatively small area to be original. A total of four auger holes were carried out. The data indicated a thin soil cover overlying bedrock or decomposing granite.

7.4.13 No archaeological material in the form of artefacts, ecofacts or possible cultural soils were found.

*Unit 6 (Figure 7.16)*

7.4.14 Auger testing was carried out along the length of the raised beach. It was found that beneath topsoil layers the sand bar was intact to a considerable depth.

7.4.15 Although no archaeological material was found, it was determined that the sand matrix and its high potential location required further testing. It was decided to excavate a series of test pits along the length of the intact sand bar.

*Unit 7 (Figure 7.17)*

7.4.16 Auger tests were located to try and define the extent of the known historical site of Wu Kai Sha in the northern part of Unit 7. It was found that to the west of the site only tests 7, 8 and 9 revealed soil deposits characteristic of the site. Those further west reflect a low and wet environment. To the south of the site the area appears to be disturbed; it was not possible to test all parts of the area due to the presence of a network of underground electricity cables.

7.4.17 No archaeological material in the form of artefacts, ecofacts or possible cultural soils were found.

---

### *Summary of the Test Pit Excavations*

- 7.4.18 Five test pits were positioned on the basis of the information gained from the auger survey in order to achieve two particular aims:
- to test whether the raised beach at To Tau Tsuen (Unit 6) contained archaeological deposits, particularly from the prehistoric period; and
  - to confirm whether the western portion of Unit 7, a low agricultural area, was part of the historical site identified by the territory-wide archaeological survey.

7.4.19 Full data from the test pit excavations is presented in Annex G2; the results of the test pit excavations are summarised here. Photographs of the material found are shown in Figures 7.18 to 7.21:

#### *Test Pit 1, Unit 6 (Figure 7.16 and 7.18)*

- 7.4.20 Test Pit 1 was located at the southern end of the raised beach, immediately north of a stream bed running from the low fields behind into the sea. It lay at approx. 5.2 m PD and measured 1.5 x 1.5m. It was excavated to a depth of 1.19 m when the sand baulks began to collapse. Augering was attempted to gain further information but the sand would not stay in the bucket below 151 cm.
- 7.4.21 A thin layer of top soil followed by a similar thin layer of sub soil both with numerous roots covered several gravel and sand layers (c. 01-02). Between the depths of -0.18 to -1.19m below the surface three contexts were recorded. Context 03, a slightly silty, sandy dark olive brown gravel with a few isolated finds including tile and two small fragments of prehistoric coarse ware sherds (Figure 7.18A). Context 04, a dark brown gravel also slightly sandy and silty, contained prehistoric coarse corded sherds and a tile fragment (Figure 7.18A). And finally, context 05, a sandy brown gravel, contained undiagnostic village ware, Wun Yiu porcelain sherds and two bronze buttons (SF#1; Figure 7.18B). The assemblage of context 05 suggests a dating to the Qing Dynasty (1644-1911 AD).
- 7.4.22 The evidence of the artefacts recovered in the three contexts described above, indicates the reworking of the sand bar at this location. The test pit was located on a slope at the southern end of the sand bar. The immediate surrounding area contains minor streams. The above evidence of artefact distribution, location of the test pit and natural surroundings suggests fluvial redepositioning of the material.



*Test Pit 2, Unit 6 (Figure 7.16 and 7.18C)*

- 7.4.23 Test Pit 2 was excavated at the northern end of the raised beach near a group of buildings. It lay approx. 5.4 m PD and measured 1.5 by 1.5m. It was excavated to a depth of 1.05 m when baulks began to collapse. Augering was attempted to gain further information but the sand would not stay in the bucket.
- 7.4.24 Below layers of topsoil and subsoil containing numerous roots and modern material (Figure 7.18C), there were 2 yellowish brown, sandy gravel contexts. Beach sand was encountered at a depth of 23cm, context 03. This dark yellowish brown, very silty, sandy gravel contained a single small coarse ware sherd (Figure 7.18C). Context 04 began at a depth of -0.38m, fragments of a pot stand and a single coarse ware sherd were excavated from this light yellowish brown sandy gravel (Figure 7.18C). The recovered fragments were found widely dispersed.

*Test Pit 3, Unit 6 (Figure 7.16 and 7.19)*

- 7.4.25 Test Pit 3 was located in the northern half of the sand bar, approx. 20m south of Test Pit 2, at approx. 5.3 m PD. It measured 1.5 x 1.5 m and was excavated to a depth of 94 cm. when the baulks began to collapse; auger testing at its base was not possible.
- 7.4.26 Topsoil and subsoil comprised greyish brown silty gravel with roots and a single village ware sherd (Figure 7.19B; undiagnostic). Context 03 consists of very dark yellowish brown silty sandy gravel. The sand bar context (04) contained a rectangular unmodified adze (SF # 2; Figure 7.19B) at 0.64 m. below surface (Figure 7.19A). The dark yellowish brown sandy gravel encountered at a depth of -0.45m did not yield any further archaeological material. The adze is made of greenish fine-grained volcanic material, shows use wear and is stained (Figure 7.20).

*Test Pit 4, Unit 6 (Figure 7.16 and 7.21A)*

- 7.4.27 Test Pit 4 was situated in the southern half of the sand body, approx. 20m north of Test Pit 1. It lay in dense undergrowth at approx. 5.3 mPD and measured 1.5 x 1.5m. Excavation ceased at 95 cm. when baulks collapsed; augering at the bottom of the test pit was attempted but the sand failed to hold.
- 7.4.28 Two contexts were encountered in the first 6 centimeters: top soil and sub soil, after which the sandbar contexts began. Contexts 02 to 04 (between -0.06 and 0.45m below surface) consisted of sandy to slightly sandy gravel and had slight colour variations. These contexts were also sterile.

7.4.29 At a depth of approx. 47-51 cm below surface a number of prehistoric sherds, mainly in the upper part, were recorded in a slightly sandy brown gravel (context 05). In the north west corner of the pit 14 body sherds from a single soft geometric vessel with dot and lozenge paddle-stamped decoration were recovered (Figure 21A). These sherds were loosely scattered in the sand bar and showed no evidence of representing an in situ crushed vessel.

7.4.30 Furthermore scattered through context 05, 19 sherds presumed to be from a single coarse vessel with paddle-stamped linear decoration, were excavated (Figure 21A). These included a shoulder/neck sherd and a rim fragment (Figure 22).

*Test Pit 5, Unit 7 (Figure 7.17 and 7.21B; 7.23)*

7.4.31 Test Pit 5 was situated in an uncultivated portion of Unit 7 low area at approx. 2.8 m PD. It measured 1.5 x 1.5 m and was excavated to a depth of approx. 58 cm when excavation ceased due to water table. An auger test was carried out at the base of the pit for an additional 50 cm. at which point the soil was too wet to hold in the bucket.

7.4.32 Below a thin layer of topsoil there were a series of agricultural fill layers deposited to transform the formerly marshy lagoonal area into arable land. Excavation recorded two contexts (c. 02 and 03) the first consisting of slightly sandy, slightly gravelly silt and the second one, context 03, sandy, slightly clayey and gravelly silt. Context 02 contained two Wun Yiu rim sherds, one undiagnostic village ware sherd and an abraded celadon fragment (Figure 7.21B). Context 03 contained a number of undiagnostic village ware sherds and a fragment of a gastropod shell (Figure 7.23A).

7.4.33 The next two contexts (c. 04 and 05) consisted of brown gravelly sand and dark yellowish brown sandy gravel. Context 04 contained a number of undiagnostic village ware sherds, two Wun Yiu sherds and a celadon fragment (Figure 7.23B). In context 05 a single fragment of an incense burner (undiagnostic) was recovered (Figure 7.21B). Below this, in context 06 there was a deposit of pale, sterile sand with organic staining which represented the original lagoonal deposit.

7.4.34 Although the majority of the finds are undiagnostic, the lack of modern artefacts in the assemblage, the Wun Yiu fragments and the celadon fragment confirm the dating of the archaeological site (Song and Qing Dynasty) in this area.

## 7.5 **Field Evaluation Summary**

7.5.1 Table 7.5.1 presents a summary of the findings of the field evaluation:

**Table 7.5.1**  
**Summary of the archaeological findings in each Unit of evaluation**

Unit	No cultural material of any period	Modern material and debris found	Historical material found	Prehistoric material found
Promontory to east of Wu Kwai Sha Tsui	√	-	-	-
Hillock at Tai Po Hoi	-	√	-	-
Agricultural area north of the fung shui hill	-	√	√	-
Back beach area of Tai Po Hoi	-	√	-	-
Western tip of Wu Kwai Sha Tsui & area of To Tau Tsuen	√	-	-	-
Raised beach south of To Tau Tsuen	-	√	-	√
Central area	-	-	√	-

7.5.2 Field evaluation has confirmed the following points:

- all of Wu Kwai Sha Tsui has been heavily altered by borrowing and land formation and has no archaeological potential;
- the former raised beach of Tai Po Hoi has been completely modified by road construction and retains no archaeological potential;
- the area to the north of the fung shui hill was formerly very low and wet and required filling to become arable land; its archaeological potential is therefore low;
- the agricultural and marshy areas to the west of Wu Kai Sha archaeological site were formerly a lagoon behind the raised beach and drained by a stream to the south; the archaeological potential of the area is therefore low and it represents the western limit of the archaeological site;
- the area of To Tau Tsuen is covered with concrete and structures; the nursery to the east of it is also terraced and concrete covered; the possibilities for evaluation were therefore limited.
- the raised beach south of To Tau Tsuen has been shown to contain prehistoric archaeological deposits with material similar to that from Yung Long and Sha Lo Wan dated to the Late Neolithic (Meacham 1995, Drewett 1995).

## 7.6 Historical Buildings and Structures Survey

### *Introduction*

7.6.1 The background, methodology and findings of the historical buildings and structures survey will be presented in this section. This will consist of the findings of the desk-based research, as well as, descriptions and summaries of the recorded resources and the identification of constraints to the proposed development.

### *Historical Potential within the Study Area*

7.6.2 The oldest existing village associated with the Study Area is Wu Kai Sha, a Hakka village, originally settled by members of the Liu clan approximately 500 hundred years ago. The other villages in the Wu Kai Sha area were settled at later dates, by descendants of the original villagers and others.

7.6.3 The village of To Tau Tsuen, was settled in the 1950's and 60's by Tanka people who had formerly lived on boats in Tolo Harbour. The families had maintained graves just outside the Study Area in Lee On for approximately one to two hundred years before settlement on land (local informant).

7.6.4 The Ma On Shan iron mine, first licensed in 1906, had economic ties with the villages of Wu Kai Sha, which was named for the black mineral containing sand, found along the coast, prior to closure of the mine (Lai 1959).

7.6.5 The villagers of Wu Kai Sha and Cheung Kang farmed in the areas immediately adjacent to their villages.

7.6.6 A small number of graves were identified in and bordering the Study Area.

### *Background*

7.6.7 A total of 28 cultural heritage resources were recorded during the field survey in and around the six villages listed below (see Figure 7.24)

- Cheung Kang;
- Kwai Po Lau\*;
- Wu Kai Sha Village\*;
- To Tau Tsuen;
- Wu Kai Sha New Village\*;
- Wu Kai Sha Middle Village\*.

\* : These four villages are recently named as Wu Kai Sha Village collectively

- 7.6.8 The recorded features included shrines, domestic structures, a school, a well and a gate. As well, the Study Area was surveyed for historical land use patterns and fung shui features. The villages were all easily accessible, and this allowed for relatively straightforward identification of the historical / cultural resources. The site of the former Whitehead Detention Centre was also recorded and included in the catalogue as a post 1950 historical resource. The field survey was undertaken to augment previous reports and to systematically record any additional heritage resources relevant to the impact assessment.

### *Methodology*

- 7.6.9 All of the villages were found to contain historical and/ or cultural structures. These units were documented on historical building recording forms. Cultural and historical information for each of the villages was also recorded in the field. Detailed descriptions of the methodology are provided below.

### *Historical Buildings and Structures*

- 7.6.10 The resources were surveyed and assessed on an individual basis. The survey consisted of a field evaluation incorporating the collection of photographic, oral and written information, on the architecture and history of all structures to be impacted by the proposed development. This information was recorded on specially designed forms, (either a full ten page form, or in cases where the structure could be adequately described in less space, a one page summary form). These forms were designed to provide a complete documentation of all identifiable pre-1950 structures, as well as any more recent structures of cultural/ historical significance. Architectural features and structural modifications, as well as historical attributes, such as previous uses and past associations with local families or prominent personages are documented on the forms. The design of the forms is based on AMO and ICOMOS (International Charter for the Conservation and Restoration of Monuments and Sites) standards for the recording of historical resources with modifications to suit architectural styles and situations encountered in Hong Kong. The recording forms also include general information about the structure, such as location, building type, usage and ownership. The forms have been compiled to create a catalogue, which has been separately submitted to AMO and TDD (Ref. CYH/2095/611 dated 28 May 2001) hence will not be presented in this EIA Report. A synopsis of each structure is presented in the following sections and the locations of the historical/ cultural resources highlighted on 1:1000 scale maps, except in the case of the former Whitehead Detention Centre, which because of its size is presented on a 1:5000 scale map, Figure 7.38.

- 7.6.11 The data gathered from the field survey for the individual heritage resources as well as the village units, along with the information from the desk-based research will be used to prepare assessments of the historical resources and recommend mitigation measures in the following sections.

*Cultural Heritage Features*

- 7.6.12 Cultural and historical information about each of the villages was also collected in the field to supplement that gathered from desk based research. This includes information such as settlement history, social background and economic features, and is presented in summary form along with the synopsis recorded resources.

*Synopses of Recorded Structures and Village Summaries*

*Resources Outside of the Study Area*

Wu Kai Sha New Village (Figure 7.25)

- 7.6.13 A modern village established in 1974. No historical buildings are located within the boundaries of the village. There are also no temples or ancestral halls. Two Dang Fu shrines were identified in the field survey.

**WH-99-01** Dang Fu shrine. Ceramic bowl with inscribed, split bamboo sticks, incense sticks and small white, wine cups included.

**WH-99-02** Dang Fu shrine. Ceramic bowl with inscribed, split bamboo sticks, incense sticks and small white, wine cups included.

Wu Kai Sha Middle Village (Figure 7.25)

- 7.6.14 A modern village containing a former school, now a community centre. No other historical buildings were identified in the village.

**WH-99-03** A single storey, concrete structure, formerly a village school in the 1950's and currently used for storage as part of a community centre. Traditional style roof.

Wu Kai Sha (Figure 7.26)

7.6.15 This is the original village of the Wu Kai Sha area. It was first settled by members of the Liu family from Sheung Shui, approximately 500 years ago. The original families were Hakka. The ancestral hall of the village fell into disrepair a number of years ago and was demolished and not replaced as very few of the original villagers' descendants remained. A large proportion of the remaining historical buildings have been abandoned or are in poor condition, as the original owners have either moved overseas or to the Wu Kai Sha New Village, which was established in 1974. The villagers traditionally supported themselves through small-scale rice and vegetable farming and the keeping of livestock. The area at the front of the village was formerly occupied by gardens belonging to the villagers (local informant).

**WH-99-04** Modern brick and concrete shrine. Horseshoe shaped low enclosure around altar.

**WH-99-05** Modern brick and concrete shrine, similar to 04. Situated at the base of a large Banyan tree, said to date back to the founding of the village (local informant).

**WH-99-06** Ruins of a village house. Coarse mud fabric and rubble walls with bricked door frame. Both ends of façade have rectangular, attached piers (typical style found in this village). All decorative features removed. Approximately 80 to 90 years old.

**WH-99-07** Ruins of village house. Coarse mud fabric and rubble walls (quite substantial in portions), with bricked door frame. Attached piers at each end of façade. Evidence of frieze and moulded decorations under mouldings at top of piers and along remnants of the side wall. Approximately 80 to 90 years old.

**WH-99-08** Inhabited village house. Similar style to 06 and 07 with modern renovations, i.e. door, windows and roof. End terrace. Right hand end of façade has an attached pier, painted white. Approximately 80 to 90 years old.

**WH-99-09** Two terraced, traditional style, village houses with modern renovations, i.e. doors and windows. The front portion of the houses is laid out with roofs (Hakka style) lying perpendicular to the main roof. The facades have been heavily altered. Buildings are approximately 80 to 90 years old.

- WH-99-10** Two storey village house with modern renovations (1990), i.e. door and windows. Façade is constructed of green brick, remaining walls under concrete. Attached piers at either end of façade, white with black frieze panels under moulded capitals. Plain black frieze under eaves at front.
- WH-99-11** Ruins of a village structure. Rough cut stone and rubble walls with render in patches. Interior animal enclosure fittings of concrete.
- WH-99-12** Dang Fu shrine (for protection of the land against construction works). Ceramic pot filled with sand, with inscribed, split bamboo sticks, incense sticks and small white ceramic wine cups.
- WH-99-13** Two terraced village houses, some modern renovations. One and a half stories. Coarse mud fabric and stone walls. Two green brick attached piers on right end of each façade. Moulding under eaves on left hand structure façade. Houses are approximately 100 years old.
- WH-99-14** Row of terraced village houses, Hakka style. Green brick walls with highly, decorative friezes (moulded and painted). Large, finely cut granite corner slabs. Houses are currently inhabited. Structures are approximately 100 years old.
- WH-99-15** Ruins of a storeroom. Roughly cut stone walls with brick doorframe entranceway. Cut granite lintel above doorway. Heavily overgrown. Over 100 years old.
- WH-99-16** Ruins of a village house. Coarse mud fabric and rubble walls covered in render. Attached piers at either end of façade. Some round roof support timbers remaining. Green brick around door frame. Pre-1950 in date.
- WH-99-17** Ruins of a completely collapsed village structure. Evidence of rough cut stone walls visible in places. Original function and date of construction indiscernible.
- WH-99-18** Dang Fu shrine. Pottery bowl filled with sand and containing, inscribed split bamboo sticks. Incense sticks and wine cups included.
- WH-99-19** One of three shrines to the left of Wu Kai Sha village. Concrete altar and incense holder on concrete platform.



**WH-99-20** One of three shrines to the left of Wu Kai Sha village. Concrete altar and incense holder on concrete platform.

**WH-99-21** One of three shrines to the left of Wu Kai Sha village. Concrete altar and incense holder on concrete platform.

**WH-99-22** Dang Fu shrine. Ceramic bowl filled with sand and containing inscribed split bamboo sticks, a fan and wine cups included.

**WH-99-23** Standing stone (possibly a scholar's stone). Cut granite with notched top.

**WH-99-28** A cut stone lined well dating back to the founding of the village, no shrine associated with it. Dry stone circular wall with concrete around concrete platform, renovated, 1956.

Kwai Po Lau (Figure 7.25)

7.6.16 Site of former village of Kwai Po Lau, currently a paved car park. There are no remnants of the village in existence. There is a modern commemorative gate located in the car park.

**WH-99-24** A modern gate at the site of the former village of Kwai Po Lau. Brown marble/ granite columns with traditional style orange ceramic roofing.

Cheung Kang (Figure 7.27)

7.6.17 The village of Cheung Kang was settled approximately 100 years ago, by three brothers, surnamed Wan, who moved there from Sai Kung. The village originally consisted of three houses and the outbuildings associated with them. All of the houses have been demolished and the only remaining historical building is the ruins of an animal enclosure. The villagers subsisted through small scale vegetable cultivation and the keeping of livestock.

**WH-99-26** Ruins of a single storey structure, divided into three parts. Mud brick, roughly cut stones and rubble walls remnants. Roof collapsed.

---

*Resources within the Study Area*

To Tau Tsuen (Figure 7.28)

- 7.6.18 The village of To Tau Tsuen was so named, as it was the site of an historical ferry pier for a service that ran from Wu Kai Sha to Tai Po. The ferry service is mentioned in the 'San On District Report' of 1688 as costing four chia for a single trip (Tai Po District Board 1997). The modern village was settled in the 1950's and 60's by several local Tanka families, surnamed Fong, Cheung, Lee and Lai. These families had previously lived on houseboats in Tolo Harbour and had used the bay in front of the modern village as an anchorage. The families had an extended association with the vicinity of the Study Area and traditionally maintained graves in the area behind the Lee On Estate (local informant).
- 7.6.19 A small number of families did not leave their boats and settle in the village in the 1950's and they can still be seen living and working on their traditional vessels in the waters facing the village. These families still earn their livelihood through fishing in and around the vicinity of Tolo Harbour. A small number of villagers also continue fishing through use of traditional methods, either by wading along the shallow waters in front of the village with hand held weighted nets, or casting their nets from small fishing boats, see Figure 7.30. Traditionally, the fishing catches were taken to local markets or sold to workers at the Ma On Shan iron mine, before its closure (local informant).
- 7.6.20 During the 1970's, the beach in front of the village was a popular recreational area. It has not been used as such over the past two decades due to increasing pollution in the area.
- 7.6.21 Today the village contains no structures predating 1950. According to a local informant there was a single older building in existence when the village was settled, but it was demolished in the 1950's. None of the buildings qualify as historical structures based on their date of construction. They were, however, included as part of the survey, in order to ascertain if they should be recorded based on AMO criteria stating that, "selected post-1950 buildings and structures with high architectural and historical significance and interest" must be included as part of the inventory.
- 7.6.22 The majority of the houses were constructed of concrete. Several houses were also tiled. Many of the houses were also found to contain recently constructed additions or extensions. In most cases these additions were constructed of sheet metal or pressed corrugated fibre. Conversations with local informants indicated that none of the structures possessed any special cultural associations.

7.6.23 Based on the above information none of the 1950's village structures were included in the recorded buildings catalogue. All examples were, however, mapped and photographed and can be seen in Figures 7.29 to 7.36. It should be noted that a tree shrine located in the village, was assessed as containing cultural value and included in the catalogue and report.

**WH-99-25** A simple shrine at the base of one of a pair of large Banyan trees. Portions of the trunk are hollow and contain the remains of burnt shells and ashes. There is a red wooden slat across the opening of the hollow. The bottom of the trunk contains a concrete incense holder.

#### Whitehead Detention Centre (Figure 7.38)

**WH-99-27** The site of the former detention centre for Vietnamese migrants. The site was dismantled in the mid 1990's and only concrete foundations, wire fences and abandoned materials remain.

#### ***Burial Associated Sites***

7.6.24 A small number of burial associated sites were identified during the survey, these included temporary urn repositories ("kam tap"), coffin slots, four permanent isolated grave features and one grave group. The sites were all mapped and representative photographs taken. The locations of the sites can be seen on the maps in Figures 7.39 and 7.40 and in the photographs in Figures 7.41, 7.42 and 7.43. The "kam tap" and coffin slots represent temporary resting-places and have been identified and mapped, but will not be included in the assessment in this report. The four isolated grave features located northwest of Wu Kai Sha village and grave group on the fung shui hill will be assessed in the report, as they represent permanent structures. Inscriptions of the graves were taken and are presented in Figure 7.44.

#### ***Historical Land Use Patterns***

7.6.25 A moderate proportion of the Study Area is presently under cultivation, primarily for flowers and vegetables. These areas did not reveal any indication of historical usage. According to local informants, the only areas that were farmed traditionally, were the areas directly in front of the village of Wu Kai Sha and that adjacent to the village of Cheung Kang, neither of these areas showed evidence of historical land use patterns during the field survey. These areas are highlighted on the map in Figure 7.40.

7.6.26 Aerial photographs of the Study Area have been included in this report in order to show changes in land use over the past 20 years. The photograph from 1978 (see Figure 7.6) shows a large part of the headland stripped of its natural foliage. The majority of the remaining Study Area is dominated by small scale agricultural plots and woodland. As well, a number of boats can be seen in the waters fronting To Tau Tsuen. The photograph taken in 1995 (see Figure 7.7) shows the headland predominated by the then operating Whitehead Detention Centre. Areas not associated with the centre are generally wooded with very few agricultural plots visible. The 1999 photograph (see Figure 7.8) shows the headland again dominated by the vacant area formerly occupied by the detention centre. The peninsula to the east of the main headland can be seen to be the only part of the Study Area still dominated by woodland. The rest of the Study Area contains agricultural plots and scrub land. This photograph also illustrates the high rate of development around the Study Area that has taken place in the last 3 to 5 years. It should be noted that a large portion of the Southern section of the Study Area has been covered in fill since the most recent photograph was taken.

#### ***Fung Shui Features***

7.6.27 The Study Area and bordering areas were also surveyed for any remaining fung shui features. A fung shui wood was identified near the village of Wu Kai Sha. The majority of the wood lies outside of the Study Area, but a portion also lies within it. The wood contains three shrines and a village well. A fung shui hill containing a cemetery was also identified within the Study Area. The hill lies on the eastern side of the Study Area, behind Tai Po Hoi. These features have been highlighted on the map in Figure 7.40.

### **7.7 Constraints and Summary**

#### ***Identification of Constraints***

7.7.1 A number of constraints were identified during the field survey. These constraints should be incorporated into any future development plans within the Study Area.

#### ***Archaeology***

7.7.2 The following archaeological issues will pose constraints on development plans:

- the historical archaeological site of Wu Kai Sha is located in the development area. The potential boundary of the site is shown in Fig.7.46 ;
- the raised beach south of To Tau Tsuen has been shown to contain prehistoric archaeological deposits with material similar to that from Yung Long and Sha

Lo Wan dated to the Late Neolithic ( Meacham 1995, Drewett 1995 ). The area immediately to the north, currently under the village of To Tau, is included within the site boundary as it also has high archaeological potential.;

- the area of To Tau Tsuen is covered with concrete and structures; the nursery to the east of it is also terraced and concrete covered; the possibilities for evaluation were therefore limited. There is high potential that the prehistoric archaeological site continues under the existing village;
- the central area is presently covered with a thick layer of fill and therefore unavailable for testing. This fill also obscures the lower portion of the fung shui hill.

#### *Historical Buildings and Structures*

7.7.3 The following resources may act as potential constraints on the proposed development:

- the fung shui hill and grave group;
- the two permanent grave features;
- the tree shrine in To Tau Tsuen;
- the fung shui wood, shrines and well, near the village of Wu Kai Sha..

#### *Summary*

##### *Archaeology*

7.7.4 The archaeological field evaluation identified a prehistoric site on the raised beach south of To Tau Tsuen and identified the potential that it may continue northwards under the present village. Evaluation also confirmed the presence of Song and Qing Dynasties material in part of the central portion of the Study Area. The field evaluation also identified two areas of potential which will be impacted by the proposed works, i.e. the lower slopes of the fung shui hill, currently under fill (Unit 2) and the central area under fill. These will require field evaluation and assessment when they become available. The area requiring future evaluation is indicated on Figure 7.46.

##### *Historical Buildings and Structures*

7.7.5 The survey has identified a number of built heritage resources that may act as constraints to the proposed development. They are; the fung shui hill and cemetery within the Study Area, two permanent grave features, the tree shrine in To Tau Tsuen and the fung shui wood, shrines and well, near the village of Wu Kai Sha. These

resources will be assessed in this report, the impacts identified and recommendations for mitigation presented where applicable.

## 7.8 Archaeological Resources Assessment

### *Introduction*

7.8.1 The findings of desk-based research and the archaeological field evaluation data will be assessed, impacts identified and mitigation measures will be presented.

### *Summary of the Findings*

7.8.2 Desk-based study was carried out to eliminate portions of the Study Area, which have been heavily modified or for other reasons had no archaeological potential. An aerial photograph taken in 1978 clearly shows that major land alterations had been carried out on the headland, removing all archaeological potential (Figure 7.6).

7.8.3 The aerial photograph taken in 1999 shows that much of the central portion of the Study Area has been covered with fill and fenced, and is not available for evaluation at this stage (Figure 7.8). Similarly, aerial photographs show that the area of To Tau Tsuen, although located in a coastal area with potential for prehistoric archaeological remains, is completely covered in concrete and structures and therefore unavailable at this stage for evaluation.

7.8.4 Previous archaeological survey (Shaanxi Province Archaeological Research Centre 1998) revealed the existence of Wu Kai Sha historical archaeological site in the centre of the low portion of the Study Area; its exact extent could not be further defined during this CHIA due to access restrictions.

7.8.5 Based on topographic information, aerial photographs and the pattern of previous finds in the territory, an area of high potential for prehistoric remains was identified in the sand body in the western part of the headland.

7.8.6 On the basis of the desk-based study accessible areas of archaeological potential were divided into Units (see Figure 7.9). Table 7.8.1, below, presents the fieldwork carried out in each of these Units and summarizes the finding.

**Table 7.8.1**  
**Summary of field evaluation conducted in each unit and its results**  
**(AH = auger holes, TP = test pit)**

Unit	Field Evaluation	Summary of the Findings of the Field Evaluation
Unit 1	10 AH	The area has been heavily modified due to borrowing; no archaeological material was recorded
Unit 2	None	The hill is occupied by recent graves; archaeological testing was not possible
Unit 3	6 AH	Low wet area raised by agricultural fill; no material of archaeological interest was recorded
Unit 4	4AH	Area modified by channelling and road construction; no archaeological material was recorded
Unit 5	4AH	Thin soil cover overlying bedrock; no archaeological material was recorded
Unit 6	12 AH; 4 TP	Prehistoric in situ deposits found in raised sand bar area
Unit 7	18 AH; 1 TP	Song and Qing dynasty material recovered in this unit

7.8.7 The results of the programme of field evaluation are the following:

- The location of a prehistoric site on the raised sandbar area south of To Tau village was identified through the field evaluation, which is potentially a site of cultural heritage with archaeological significance. Evaluation also highlighted the potential that the site may also underlie the current village;
- There is a likelihood that prehistoric material may lie under To Tau Tsuen, located on the same sand body;
- The presence of the historical site in part of the central area (Unit 7) was confirmed by the field evaluation. Full evaluation of this historical archaeological site was not possible at this stage due to restricted access; as a result, the extent and boundary of the site cannot be given at this stage (Figure 7.45).

#### *Assessment*

7.8.8 The following table presents the proposed development in each of the Units evaluated as having archaeological potential and/or significance:

**Table 7.8.2**  
**Summary of Proposed Impacts in Areas of Archaeological Potential**

Unit	Archaeological Findings	Proposed Development in the Unit
Unit 1	No archaeological material	N/A
Unit 2	Untested	Preserved woodland; cycle path around western side
Unit 3	No archaeological material	Road system, footpath and residential development
Unit 4	No archaeological material	Footpath and road system
Unit 5	No archaeological material	Water recreational centre and shore base elements and salt water pumping station
Unit 6	Archaeological finds recorded	Transport corridor along eastern edge of the sandbody
Unit 7	Archaeological finds recorded	Proposed transport corridor, residential development and associated formation works

***Mitigation Recommendations***

7.8.9 The following recommendations are given to mitigate against adverse and unacceptable impacts on archaeological resources. Total preservation of sites of cultural heritage is a top priority and partial preservation would only be considered with full justifications to confirm the impracticality of full preservation. Total destruction would be considered only as a last resort in all cases:

**Table 7.8.3**  
**Summary of Proposed Mitigation Recommendations in Areas of Archaeological Potential**

Area	Mitigation Recommendations
Prehistoric archaeological site	<p>In accordance with the <i>Guidance Notes: Assessment of impact on sites of Cultural Heritage in Environmental Impact Assessment Studies (notes 19 – 21)</i>, the historical archaeological site of Wu Kai Sha, once clearly defined through field testing, and the prehistoric site south of To Tau Tsuen should be avoided fully or integrated intact into the project design as open spaces;</p> <p>Temporary shoring should be provided when necessary to keep the prehistoric site (see Figure 7.45) undisturbed during the construction of the proposed Road D1(N) or any works associated with this project;</p> <p>Fencing should be provided along the section of Road D1(N) abutting the sand bar to prevent disturbances during the operational stage phase.</p>



Area	Mitigation Recommendations
To Tau Tsuen Prehistoric archaeological site	<p>The salt water pumping station and its intake proposed to locate within the prehistoric archaeological site has been relocated outside the site and no archaeological pre-testing is required;</p> <p>If concrete at To Tau Tsuen is to be broken or any structures razed it is recommended that the opportunity be taken to test any exposed areas of the sand bar below; the AMO should be notified of any such scheduled works;</p> <p>Any archaeological survey in To Tau Tsuen which will be undertaken after the EIA process (for Schedule 3 Designated Project), should be laid down as a condition in the OZP or Environmental Permit whichever is appropriate to alert the future developer or project proponent to include such survey in the development process. Requirements in Annexes 10 and 19 of EIA TM should be strictly followed which includes the requirements for the mitigation measures for cultural relics identified by the survey;</p> <p>Methodology (based on Annexes 10 and 19 of EIA TM) and programme should be agreed in advance with the AMO for the above-mentioned additional field investigations. The AMO should also be notified at least two weeks before the commencement of investigation for their necessary site monitoring work on the survey;</p> <p>The archaeologist responsible for any archaeological investigation should obtain a license from the Authority under the provision of the Antiquities and Monuments Ordinance (Cap. 53) before undertaking any fieldwork.</p>
Unit 7 and Central area under fill Song and Qing Dynasties archaeological site	<p>In accordance with the <i>Guidance Notes: Assessment of impact on sites of Cultural Heritage in Environmental Impact Assessment Studies (notes 19 – 21)</i>, the historical archaeological site of Wu Kai Sha, once clearly defined (currently there is insufficient conclusive evidence) through field testing, and the prehistoric site south of To Tau Tsuen should be avoided fully or integrated intact into the project design as open spaces;</p> <p>The central area presently covered in fill will require archaeological field evaluation at a later date and before the commencement of any building works or earthworks when access is available. It should be noted that the inability to carry out evaluation during this stage means that the normal EIA requirements have not been fulfilled. Postponement of evaluation to a later stage carries with it the risk that a major archaeological site may be confirmed which would have serious implications for future development of the site. The future developer or project proponent will bear the risk of altering the development or project layout, if the site is proved to be rich in archaeological deposit by the future survey. Requirements in Annexes 10 and 19 of EIA TM should be strictly followed which includes the requirements for mitigation measures for cultural relics identified by the survey;</p> <p>This proposed survey in the area currently under restricted access which will be undertaken after the EIA process (for Schedule 3 Designated Project), is proposed to be laid down as a condition in the OZP, planning brief of the CDA or land exchange documents, or Environmental Permit (for Road D1), whichever is appropriate to alert the future developer or project proponent to include such survey in the development process;</p> <p>Methodology (based on Annexes 10 and 19 of EIA TM) and programme should be agreed in advance with the AMO for the above-mentioned additional field investigations. The AMO should also be notified at least two weeks before the commencement of the investigation for their necessary site monitoring on the survey;</p> <p>The archaeologist responsible for any archaeological investigation should obtain a license from the Authority under the provision of the Antiquities and Monuments Ordinance (Cap. 53) before undertaking any fieldwork.</p>

Area	Mitigation Recommendations
Proposed New Roads D1(E), D1(W) and D1(N)	<p>For the reasons of Unit 2 was untested under the archaeological field evaluation at this stage and cultural relics dated to Late Neolithic period, Song and Qing dynasties were discovered at Units 6 and 7 of Figure 7.9 and a piece of land as shown by Figure 7.46 presently covered by fill, it is recommended that further archaeological field evaluation will be required within the project limit of the proposed new roads of D1(E), D1(W) and D1(N) as shown by Figure 7.46, the further archaeological field evaluation shall be conducted before the commencement of the roads project. The purpose of the further archaeological field evaluation is to ensure that no cultural relic will be affected by the roads project during the construction stage. Requirements in Annexes 10 and 19 of EIA TM should be strictly followed which includes the requirements for mitigation measures for cultural relics identified by the survey;</p> <p>Methodology (based on Annexes 10 and 19 of EIA TM) and programme should be agreed in advance with the AMO for the above mentioned additional field investigation. The AMO should also be notified at least two weeks before the commencement of the investigation for their necessary site monitoring on the survey; the archaeologist responsible for any archaeological investigation should obtain a license from the Authority under the provision of the Antiquities and Monuments Ordinance (Cap.53) before undertaking any fieldworks.</p>

## 7.9 Historical Buildings and Structures Assessment

### *Introduction*

- 7.9.1 The findings of results of the desk based research and built heritage field survey will be briefly summarised below.
- 7.9.2 In this part of the report the identified resources will be assessed, impacts identified and mitigation measures presented. For purposes of this assessment, the heritage resources within villages have been grouped into village units. The impacts to these resources, if any, will be indirect. Resources outside of the villages will be assessed as individual units. The impacts to these resources will be both direct and indirect. The need for any mitigative measures will be presented.

### *Summary of Findings*

#### *Village Units*

- 7.9.3 A total of 28 cultural heritage resources were recorded during the field survey in and in association with the following villages and at the site of the former Whitehead Detention Centre. The standing stone, shrines and well in the fung shui wood associated with the historical village of Wu Kai Sha were included in that village's synopsis, as they are culturally and historically related to the village. They will, however, be assessed separately from the village, as individual resources, as they are not located within the physical confines of the village and therefore, the degree of the impacts will not necessarily be the same. Finally, it should also be noted that dang fu shrines, which were identified and recorded in previous part of this report, will not be

assessed as they are temporary in nature.

7.9.4 The mapped locations of all of the resources listed below can be found in Figures 7.25 to 7.29. The village units and recorded resources within them are as follows:

- Cheung Kang (a ruinous shed; WH-99-26)
- Kwai Po Lau (a modern gate; WH-99-24)
- Wu Kai Sha (5 permanent shrines; WH-99-04,05,), (3 Dang fu shrines; WH-99-12,18 and 22), (5 houses; WH-99-08,09,10,13,14) and (6 ruins WH-99-06,07,11,15,16 and 17)
- To Tau Tsuen (a tree shrine:WH-99-25)
- Wu Kai Sha New Village (2 dang Fu shrines; WH-99-01 and 02)
- Wu Kai Sha Middle Village (a former school; WH-99-03)
- Site of the former Whitehead Detention Centre (compound area, no structural remains; WH-99-27)

#### *Individually Assessed Built Heritage Resources*

7.9.5 One historical well (WH-99-28) located in the fung shui wood east of the village of Wu Kai Sha was identified in the survey.

7.9.6 One standing stone (WH-99-23) and three permanent shrines (WH-19, 20 and 21) located in the fung shui wood located to east of the village of Wu Kai Sha were identified in the survey. (WH-99-22) a dang fu shrine was identified, but will not be assessed.

7.9.7 Site of the former Whitehead Detention Centre (WH-99-27) was identified in the survey.

7.9.8 Burial Associated sites; One historical grave feature (c) and one potentially historical grave feature (a) were identified in the field survey. Two modern grave features were also identified (b and d), as was a modern grave group. The modern graves do not represent cultural heritage resources.

#### *Historical Land Use Patterns*

7.9.9 No evidence of historical land use patterns were identified in or in the vicinity of the Study Area during the field survey.

#### *Fung Shui Features*

7.9.10 Two fung shui features were identified, the first being a hill containing a modern grave group and the second being a woodland containing a standing stone, three

shrines and a well.

*Assessment*

7.9.11 Some of the identified resources will receive impacts from the proposed development. The majority of the impacts will be indirect and visual. It must be noted that a proposed road, Highways Department Project, B645-TH, N.T. Region, located along the Study Area western boundary will directly impact the following recorded resources; permanent grave a, and portions of the fung shui wood. The impacts of the road will be noted below, as they will directly affect these resources, and this must be taken into account for assessment and mitigation purposes in this CHIA.

*Cultural Heritage Resources within the Study Area*

Impacts

7.9.12 Some of the cultural heritage resources within the Study Area will receive indirect impacts from the proposed development, as at the very least, their currently existing environments will be altered. Permanent grave feature a will be about 5m from the proposed Road D1(W). The following table will present and describe the resources, present the assessments, list existing land use in their immediate vicinities and describe the impacts by providing the type and distance of the proposed development from the resource.

**Table 7.9.1**  
**The Recorded Resources within the Study Area, the Assessment, Existing Land Use in their Immediate Vicinity and the Type and Distance of the Proposed Development**

Resource	Description	Assessment	Existing Land Use in Area	Proposed Development Type and Distance
To Tau Tsuen	<ul style="list-style-type: none"> <li>• This village contains no historical structures</li> <li>• The village is still home to a number of Tanka families who settled there in the 1950's</li> <li>• There is a tree shrine in the village</li> </ul>	<ul style="list-style-type: none"> <li>• The village represents the settlement area of a specific ethnic group, in this case, the Tanka</li> <li>• The village is oriented away from all of the development except for the waterfront footpath.</li> </ul>	<ul style="list-style-type: none"> <li>• Residential</li> </ul>	<ul style="list-style-type: none"> <li>• Transport corridor (about 20 m)</li> <li>• Residential units (about 50 m)</li> <li>• Waterfront footpath (to run along the coast in front of the village)</li> <li>• The northern and southern sections of the village lie within areas of preserved</li> </ul>

Resource	Description	Assessment	Existing Land Use in Area	Proposed Development Type and Distance
				woodland
<b>Fung Shui Hill</b>	<ul style="list-style-type: none"> <li>A small wooded hillock containing a number of graves on its north slope</li> </ul>	<ul style="list-style-type: none"> <li>The graves are modern and associated with the village of To Tau Tsuen</li> <li>The proposed development surrounds the fung shui hill</li> </ul>	<ul style="list-style-type: none"> <li>Graves / woodland</li> </ul>	<ul style="list-style-type: none"> <li>The hill will be maintained as a preserved woodland</li> <li>The existing road along the eastern boundary of the fung shui hill will be improved. The construction of the road will avoid cutting into the hill slope. Minor fill will be required on the lower eastern hill slope</li> <li>A cycle path will be constructed along the western side of the fung shui hill. The path will generally follow the existing topography</li> </ul>
<b>Permanent Grave Feature a</b>	<ul style="list-style-type: none"> <li>A semi-circular dry stone structure with urn</li> </ul>	<ul style="list-style-type: none"> <li>The grave was renovated in 1965 and may be historical</li> </ul>	<ul style="list-style-type: none"> <li>Abandoned / woodland</li> </ul>	<ul style="list-style-type: none"> <li>This feature lies within a preserved woodland</li> <li>Proposed Road D1(W) (approximately 5m)</li> <li>Proposed residential block is over 60m away</li> </ul>

*Cultural Heritage Resources Outside the Study Area*

Impact

7.9.13 These resources all lie outside of the Study Area and will be indirectly affected by the

proposed development, however, as noted above, a road is planned that will directly affect permanent grave feature a and portions of the fung shui wood (Highways Department Project, B645-TH, N.T. Region). The road will run approximately 20 metres to the east of the shrines (WH-99-18, 19 and 20).

7.9.14 The following table will present and describe the resources, present the assessments, list existing land use in their immediate vicinities and describe the impacts by providing the type and distance of the proposed development from the resource. As well, the resources that will be directly impacted by the proposed road will be noted.

**Table 7.9.2**  
**The Recorded Resources Outside of the Study Area, the Assessment,**  
**Existing Land Use in their Immediate Vicinity and**  
**the Type and Distance of the Proposed Development**

Resource	Description	Assessment	Existing Land Use in area	Proposed Development Type and Distance
<b>Kwai Po Lau Gate</b>	<ul style="list-style-type: none"> <li>A modern gate built after the demolition of the village</li> </ul>	<ul style="list-style-type: none"> <li>The gate is modern and is situated in a non-traditional location, i.e. the middle of a functioning car park</li> <li>The gate is oriented towards the development</li> </ul>	<ul style="list-style-type: none"> <li>Residential</li> <li>Car park</li> </ul>	<ul style="list-style-type: none"> <li>Residential development (over 100 metres)</li> <li>Transport corridor (over 100 metres)</li> </ul>
<b>Cheung Kang</b>	<ul style="list-style-type: none"> <li>A very small collection of modern village houses and the very dilapidated ruins of a pre 1950 animal pen</li> </ul>	<ul style="list-style-type: none"> <li>The ruins do not possess any outstanding architectural or historical features</li> </ul>	<ul style="list-style-type: none"> <li>Residential</li> </ul>	<ul style="list-style-type: none"> <li>Residential development (over 100 metres)</li> <li>Transport corridor (over 100 metres)</li> </ul>
<b>Wu Kai Sha</b>	<ul style="list-style-type: none"> <li>Village containing historical residential structures</li> <li>No historical landscape evidence remains</li> </ul>	<ul style="list-style-type: none"> <li>The oldest remaining village in the Wu Kai Sha area</li> <li>Some of the village structures contain architectural and historical merit</li> </ul>	<ul style="list-style-type: none"> <li>Residential</li> </ul>	<ul style="list-style-type: none"> <li>Residential development (over 100 metres)</li> </ul>

Resource	Description	Assessment	Existing Land Use in area	Proposed Development Type and Distance
Wu Kai Sha New Village	<ul style="list-style-type: none"> <li>A modern village containing no permanent cultural heritage resources (only recorded features were two temporary Dang Fu shrines)</li> </ul>	<ul style="list-style-type: none"> <li>This village contains no relevant cultural heritage features</li> </ul>	<ul style="list-style-type: none"> <li>Residential</li> </ul>	<ul style="list-style-type: none"> <li>Residential development (over 100 metres)</li> </ul>
Wu Kai Sha Middle Village	<ul style="list-style-type: none"> <li>A modern village containing a school building constructed in the 1950's (now used as a community centre)</li> </ul>	<ul style="list-style-type: none"> <li>The structure was built as a village school and continues to perform a communal function as a community centre</li> </ul>	<ul style="list-style-type: none"> <li>Residential</li> </ul>	<ul style="list-style-type: none"> <li>Residential development (over 100 metres)</li> </ul>
Fung Shui Wood	<ul style="list-style-type: none"> <li>A mixed species woodland containing shrines of modern construction</li> </ul>	<ul style="list-style-type: none"> <li>The wood represents an important cultural resource for the local villagers</li> <li>The proposed development is oriented towards the woodland</li> </ul>	<ul style="list-style-type: none"> <li>Fung Shui</li> </ul>	<ul style="list-style-type: none"> <li>Residential development (about 100 metres) from the shrines with preserved woodland in intervening area</li> <li>*The current alignment of Road D1(W) proposed under the Sai Sha Road widening project will lie approximately 20 metres to the east of the three shrines and standing stone</li> </ul>
				<ul style="list-style-type: none"> <li>The portion of the wood containing the well will be directly impacted by the proposed road mentioned above</li> </ul>

Resource	Description	Assessment	Existing Land Use in area	Proposed Development Type and Distance
Permanent Grave Feature c	<ul style="list-style-type: none"> <li>The grave is constructed of brick and concrete and has a plaque saying it was built in 1911</li> </ul>	<ul style="list-style-type: none"> <li>The grave is historical</li> </ul>	<ul style="list-style-type: none"> <li>Recreational / Abandoned</li> </ul>	<ul style="list-style-type: none"> <li>Drainage channel associated with proposed Road D1(W) (approximately 14 metres)</li> </ul>
Permanent Grave feature b	<ul style="list-style-type: none"> <li>Concrete enclosure with incense holder</li> </ul>	<ul style="list-style-type: none"> <li>The structure is entirely modern, no inscription and does not represent a cultural heritage resource</li> </ul>	<ul style="list-style-type: none"> <li>Abandoned/ woodland</li> </ul>	<ul style="list-style-type: none"> <li>In the alignment of proposed Road D1(W)</li> </ul>
Permanent Grave Feature d	<ul style="list-style-type: none"> <li>Concrete enclosure with incense holder</li> </ul>	<ul style="list-style-type: none"> <li>The structure is entirely modern, no inscription and does not represent a cultural heritage resource</li> </ul>	<ul style="list-style-type: none"> <li>Recreational, /Abandoned</li> </ul>	<ul style="list-style-type: none"> <li>Proposed Road D1(W) (approximately 45 metres)</li> </ul>
Well	<ul style="list-style-type: none"> <li>Cut stone covered in concrete</li> </ul>	<ul style="list-style-type: none"> <li>Dated by villagers to the founding of the village</li> </ul>	<ul style="list-style-type: none"> <li>Adjacent to Fung Shui wood</li> </ul>	<ul style="list-style-type: none"> <li>3 metres away from the alignment of proposed Road D1(W)</li> <li>Approximately 10 metres away from the proposed public footpath</li> </ul>

Note:

\* The Sai Sha Road widening project has been gazetted under the Roads Ordinance. The project is independent of this Study.



**Mitigation Recommendations**

*Resources within the Study Area*

**Table 7.9.3**  
**Mitigation Recommendations for the Recorded Resources Inside the Study Area**

Resource	Mitigation Recommendation
To Tau Tsuen	<ul style="list-style-type: none"> <li>The tree shrine (WH-99-25) should be preserved in situ.</li> <li>Information on the history of To Tau Tsuen, gathered from desk based research and local informants should be presented as a cultural heritage tourism feature in an easily accessible form, such as poster boards along the waterfront footpath route and in the planned heritage centre.</li> </ul>
Fung Shui Hill	<ul style="list-style-type: none"> <li>The impacts from construction associated with the improvement of the existing road to the east of the hill should be kept to a minimum, for example, cutting of the slope should be avoided.</li> <li>The land bordering the proposed cycle path along the western side of the hill should remain wooded.</li> </ul>
Permanent Grave Feature a	<ul style="list-style-type: none"> <li>The alignment of proposed Road D1(W) should be designed to allow preservation in-situ. Mitigation in the form of erection of protecting fencing around the structure during the construction phase should be implemented.</li> </ul>

*Resources outside the Study Area*

**Table 7.9.4**  
**Mitigation Recommendations for the Recorded Resources Outside the Study Area**

Resource	Mitigation Recommendation
Kwai Po Lau Gate	<ul style="list-style-type: none"> <li>No mitigation measures are necessary, as the gate is located over 100 metres away from the proposed development</li> </ul>
Cheung Kang	<ul style="list-style-type: none"> <li>No mitigation measures are necessary, as the recorded resource is a ruinous abandoned animal shed located in the midst of modern village structures</li> </ul>
Wu Kai Sha	<ul style="list-style-type: none"> <li>No mitigation measures are necessary, as the village lies over 100 metres from the development and a preserved woodland including the remaining fung shui wood lie between the village and the development</li> </ul>
Wu Kai Sha New Village	<ul style="list-style-type: none"> <li>No mitigation measures are necessary, as the village contains no permanent cultural heritage features</li> </ul>
Wu Kai Sha Middle Village	<ul style="list-style-type: none"> <li>No mitigation measures are necessary, as the former school structure is located within the modern village and lies over 100 metres from the proposed development</li> </ul>

Resource	Mitigation Recommendation
Fung Shui Wood (shrines and standing stone)	<ul style="list-style-type: none"> <li>No mitigation measures are necessary for the shrines and standing stone as they lie approximately 20 to 40 metres from the proposed development and will be buffered from the development as they lie within a preserved woodland</li> <li>No mitigation measures will be necessary for the portions of the fung shui wood unaffected by the proposed highways department road as it will be buffered from the development proposed in this CHIA by a preserved woodland</li> </ul>
Permanent Grave Feature b	<ul style="list-style-type: none"> <li>The feature is entirely modern, thus no mitigation measures on cultural heritage grounds are required</li> </ul>
Wu Kai Sha Village Well	<ul style="list-style-type: none"> <li>Preservation in-situ with complementary landscaping</li> <li>Mitigation measures in the form of erection of protective fencing around the surface features of the structure during the construction phase should be implemented</li> </ul>
Permanent Grave Feature c	<ul style="list-style-type: none"> <li>Mitigation measures in the form of erection of protective fencing around the structure during the construction phase should be implemented</li> </ul>
Permanent grave Feature d	<ul style="list-style-type: none"> <li>The feature is entirely modern and does not require mitigation on cultural heritage grounds</li> </ul>

## 7.10 Assessment and Mitigation Summary and Conclusions

### *Archaeological Resources*

7.10.1 The following mitigation is recommended for archaeological resources identified within the Study Area:

- In accordance with the *Guidance Notes: Assessment of impact on sites of Cultural Heritage in Environmental Impact Assessment Studies (notes 19 – 21)*, the historical archaeological site of Wu Kai Sha, once clearly defined through field testing, and the prehistoric site south of To Tau Tsuen should be avoided fully or integrated intact into the project design as open spaces;
- Temporary shoring should be provided where necessary to keep the prehistoric site undisturbed during the construction of the proposed Road D1(N) or any works associated with this project;
- Fencing should be provided along the section Road D1(N) abutting the prehistoric site to prevent disturbances during the operational phase;

- If concrete at To Tau Tsuen is to be broken or any structures razed it is recommended that the opportunity be taken to test any exposed areas of the sand bar below; the AMO should be notified of any such scheduled works;
- The central area presently covered in fill will require archaeological field evaluation at a later date and before the commencement of any building works or earthworks when access is available. It should be noted that the inability to carry out evaluation during this stage means that the normal EIA requirements have not been fulfilled. Postponement of evaluation to a later stage carries with it the risk that a major archaeological site may be confirmed which would have serious implications for future development of the site;
- For the reasons of Unit 2 was untested under the archaeological field evaluation at this stage and cultural relics dated to Late Neolithic period, Song and Qing dynasties were discovered at Units 6 and 7 of Figure 7.9 and a piece of land as shown by Figure 7.46 presently covered by fill, it is recommended that further archaeological field evaluation will be required within the project limit of the proposed new roads of D1(E), D1(W) and D1(N) as shown by Figure 7.46, the further archaeological field evaluation shall be conducted before the commencement of the roads project. The purpose of the further archaeological field evaluation is to ensure that no cultural relic will be affected by the roads project during the construction stage. Requirements in Annexes 10 and 19 of EIA TM should be strictly followed which includes the requirements for mitigation measures for cultural relics identified by the survey.
- Regarding the heritage preservation issues, the proposed development would not result in unacceptable environmental impacts on the area of former Whitehead Detention Centre. However, since the cultural relics in the central area discovered in 1997 would be encroached upon by the development, the layout may need to be re-designed dependent upon further survey results to protect the cultural relics underground. Further survey in accordance with AMO's requirements must be conducted to ascertain the extent of the cultural relics distribution. Subject to the result of future survey, mitigation measures according to the requirements stated in Annexes 10 and 19 of EIA TM should be made for the identified cultural relics;
- Any archaeological survey in To Tau Tsuen and in the area currently under restricted access which will be undertaken after the EIA process, should be laid down as a condition in the OZP or Environmental Permit whichever is appropriate to alert the future developer or proponent to include such survey in the development or project process;

- Methodology (based on Annexes 10 and 19 of EIA TM) and programme should be agreed in advance with the AMO for the above-mentioned additional field investigations. The AMO should also be notified at least two weeks before the commencement of the investigation;
- The archaeologist responsible for any archaeological investigation should obtain a license from the Authority under the provision of the Antiquities and Monuments Ordinance (Cap. 53) before undertaking any fieldwork.

### ***Built Heritage***

7.10.2 The following mitigation measures are recommended for impacted resources:

- Direct impacts should be kept to a minimum on the fung shui hill, i.e. slope cutting should be avoided.
- Information on the history and culture of the traditional Tanka residents of To Tau Tsuen should be incorporated into the planned development in the form of poster boards along the waterfront footpath and in the heritage centre.
- Mitigation measures in the form of protective fences to be erected during the construction phase are required for the well and permanent grave features a and c. Complementary landscaping should be implemented in the vicinity of the well.
- The alignment of proposed D1 (W) should be designed to allow preservation in situ for permanent grave feature a.

### 7.11 **References**

Allen, P.M. and E.A. Stephens, 1971. Report on the Geological Survey of Hong Kong. Hong Kong: Government Press.

Antiquities and Monuments Office. Criteria for Cultural Heritage Impact Assessment.

Drewett, P., 1995. Neolithic Sha Lo Wan. Antiquities and Monuments Office Occasional Paper No. 2.

Geotechnical Control Office, 1986. Geology of Sha Tin. Hong Kong: Civil Engineering Services Department.

Hong Kong Environmental Protection Department, 1997. Guidance Notes: Assessment of Impact on Sites of Cultural Heritage in Environmental Impact Assessment Studies

Lai, C. Y., 1959. The Ma On Shan Iron Mine. Hong Kong

Meacham, W., 1995. Middle and Late Neolithic at "Yung Long South" in C.T. Yeung and W.L.Ling (eds), Conference Papers on Archaeology in Southeast Asia, Hong Kong: University Museum and Gallery, University of Hong Kong.

Peacock, B.A.V and T. Nixon, 1986. Report of the Hong Kong Archaeological Survey. Unpublished report. Hong Kong: Antiquities and Monuments Office.

Shaanxi Province Archaeological Research Centre, 1998. Report of the Northern Sai Kung Archaeological Investigation. Unpublished report. Hong Kong: Antiquities and Monuments Office.

Sze Ma-lung, 1990. Hong Kong in the Past: New Territories. Hong Kong: Joint Publishing Co.

Tai Po District Board, 1997. History of Tai Po. Hong Kong: Tai Po District Board