

Fact Sheet 01

Central Police Station Revitalisation Project Restoration of the Historic Buildings

The Principles



An artist's impression of the revitalised Central Police Station compound

The Central Police Station (CPS) Revitalisation Project is a key part of the Conserving Central initiative and aims to restore a significant heritage site for adaptive reuse as a centre for heritage, contemporary art and leisure. It began with the research for and production of a Conservation Management Plan (CMP), which was published in 2008.

The construction, modifications and refurbishment works at the CPS site are designed to match the requirements of the proposed uses, enhance the spaces and connections between the buildings, and improve circulation throughout the site.

The principal changes and refurbishment works include alterations to suit the new uses, repairs to internal finishes and facades, upgrading of electrical and mechanical installations, improvement of the paving and site circulation between buildings, and opening up part of the existing boundary wall to facilitate access to the site.

Construction works vary according to the needs and condition of individual buildings. Much of the works are to remove modern accretions and to bring the buildings back into a good state of repair so that they can be reused.

As the historic buildings remaining in the CPS compound were built between the mid-19th Century and the mid-20th Century, it would not be practical to attempt to restore the entire site to any particular “period”. A key element of the project is to reveal the story of the site over the 170-odd years of its history, charting its development and (sometimes) radical changes during this period.

For this reason, the modifications and refurbishment works at CPS are aimed at restoring each of the historic buildings to the state when it was built, or to its earliest traceable major renovation. This facilitates a narration of the changes that have taken place on the site over the last century or so, which in turn can assist interpretation of them for the benefit of future generations.

This is of particular importance to a city such as Hong Kong where the cityscape has changed rapidly within a relatively short period of time, and many buildings have been lost due to demolition and replacement by new ones that are radically different.

Authenticity is the key

Authenticity is the foundation of all conservation works and the CPS project seeks to fulfil this objective. The refurbishment works are guided by the research begun in the CMP and which has continued as the project has developed during the five years since then.

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Fact Sheet 02

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The Facades

The CPS buildings that exist today were built at various dates, ranging from the 1850s (D Hall and Bauhinia House) to the mid-20th Century (F Hall). The colours that were applied to these buildings varied over time.

As confirmed by the findings of detailed paint analyses, most building surfaces have multiple paint layers. The first floor balusters (c.1862) of the Barrack Block, for example, have some 32 identifiable layers.

In the case of the Married Sergeants' Quarters, however, its exterior was bare brick walls for most of the time since its construction in the early 1900s and the beige paint was applied only in recent years.

The colours applied to the buildings were generally earth-bound colours, from beige to dark reddish-brown. The exceptions were the use of green and bright blue, which occurred later in the history of the

CPS site and were confined generally to the prison and police compound areas respectively. Green was used during the early 20th Century onward for doors and windows within the Prison Compound, including, originally, the so-called "Blue Gate" facing Old Bailey Street. The bright

blue applied on the gate was a post-1980 decoration. The same blue was used from a similar date for the doors and window frames, and for signage, within the Police Compound.



The original beige colour is restored to the exterior wall of the Police Headquarters Block

The revelation of historical paint layers applied to old buildings can help to explain the history of the buildings and how they changed over time, and to guide restoration works.

The façades were restored generally to their original colours (or natural brick surfaces, as the case may be) or the earliest traceable major renovation. This means that some of the restored buildings have colours that are different to those at the time of site decommissioning in 2006. In the case of the Police Headquarters Block, for example, the north façade was restored from a dull grey to beige.

The restored facades can be expected to "show their age". The intention is not to create an image of an old building trying to look like a new building, nor a new building trying to look like an old building, but rather to recognise that the building is a century or so old and to present it as such. This is respectful to the age and significance of the building and distinguishes it from any replica building.



Repairing and Repainting the Façades

Examination of the paint layers showed that generally they were unstable and needed to be removed before re-painting could be carried out. This required consideration of how best to remove the layers without causing damage to the underlying substrate. A series of paint removal trials was carried out to find a method that was effective and practical. The outcome of the trials was to use a chemical paint stripper to soften the paint, leaving it overnight, and to remove the softened paint using high-pressure steam. The results were highly satisfactory, having removed the paint layers thoroughly but without causing damage to the underlying surfaces.

One of the effects of paint removal was the uncovering of old defects in the rendering which had previously been hidden by the paint layers. These had to be repaired before repainting could go ahead. In some cases the defects were confined to unstable layers of filler no more than 1mm thick, to sections of the original render, which had to be carefully removed and replaced. Once these works were complete, a primer coat was applied to even out the effects of the various substrates – original, modern and new – before the new paint media could be applied.



A brick wall before and after repair

All about paints

The use of paint analysis to determine the scope and direction of conservation of historical buildings is a well-established practice in Europe, Australia and North America. For CPS, a preliminary examination of paint media was commissioned by the Hong Kong Jockey Club (HKJC) in 2011 and carried out by Lisa Oestreicher, a paint analyst and conservator from the United Kingdom. A further, extensive examination was commissioned by the HKJC in 2012 and carried out by the Architectural Conservation Laboratory at the University of Hong Kong. Both tasks, and the reports that followed, comprised the collection of samples of paint from the surfaces of the historical buildings which were examined under a microscope and photographed. These photographs (“photomicrographs”) were then tabulated in the reports alongside a commentary on the findings to enable the results to be interpreted.



A microscopic view of multiple layers of paint with a total thickness of approximately 1.2mm on a wall surface at CPS

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Fact Sheet 03

Central Police Station Revitalisation Project Restoration of the Historic Buildings

The Roofs

The majority of the 16 historic buildings in the CPS compound have clay-tiled roofs.¹ The existing tiled roofs are of various dates irrespective of the original date of construction of the buildings, since most of the roofs have been re-covered over the years.

The surface finish of the roofs varies: some appear to have been coated with black bitumen whereas others, for example, the eastern half of the Barrack Block and the whole of the Single Inspectors' Quarters, are uncoated.

The condition of the tiled roofs varies, but all suffered from leaks and need to be re-tiled. To do nothing is not an option. In addition to providing improved weather-tightness, the re-tiling has enabled insulation and vapour barriers to be installed to counteract the risk of condensation and improve energy efficiency.

A review of various historical sources and other western-style historical buildings in Hong Kong has been carried out, revealing that historically, buildings such as these were finished without any additional decorative treatment. The evidence for this may be seen in Murdoch Bruce's oil paintings entitled: "Hong Kong looking west from Murray's Battery" (1846) which clearly shows the roofs terracotta in colour; "View of Lyndhurst Terrace, Wellington Street and Cochrane Street looking west from the Roman Catholic Church" (1846); and "Aberdeen Street" (1846).



A Murdoch Bruce painting showing the terracotta roofs of buildings in Central in 1840s

It is believed that the bitumen-covered or painted roofs, whatever the colour chosen, were painted to refresh the appearance and/or to make good small cracks in the mortar coverings and to improve weather resistance. It may be that over time, the later treatment of an historical roof could become fashionable in its own right, which then led to new roofs being built and finished in the same manner.

For these reasons, in restoring the roofs, tiles are left in their natural terracotta colour and the tile rolls are finished with natural-coloured mortar. The appearance of the rolls is light grey but this will weather to a grey-brown over time, and the tiles can be expected to darken.

The re-roofing of some of the CPS buildings will produce an appearance that is different to the current condition. This however is consistent with the original, historical tradition for Western style buildings in Hong Kong.

¹ The exceptions are A, B, C, D and F halls of the Victoria Prison which have flat, concrete roofs.



Rooftop in need of repair



Repaired rooftop of the Police Headquarters Block

Tile Configurations

The outward appearance of all the tiled roofs is similar, so far as the general design and construction is concerned. Each of them consists of two layers of clay pantiles overlaid with half-round roll tiles, the upper layer being bedded in mortar directly on top of the lower layer. Each layer of pantiles is arranged so that every tile overlaps the tile directly below it by about two-thirds of its length, leaving the remaining one-third of the tile exposed to view. The pantiles are arranged side-to-

side with simple butt joints. The resultant gaps between the tiles are covered with the roll tiles to form a watertight covering. This arrangement is then repeated in the top layer except that the roll tiles are covered with a thick layer of mortar. The ridges and hips of the roofs are built up with mortar and profiled to form a broad, rounded top surface.

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Fact Sheet 04

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Timber Windows and Doors

In the 16 historic buildings on the CPS site, there are many hundreds of timber windows and doors, as well as many more ironmongery items, such as hinges, casement stays and fasteners that hold and secure the windows and doors to their frames.

In modern times, the windows of the CPS buildings have been much altered to accommodate air-conditioner units. This has disfigured the appearance of the buildings and so threatened their architectural value. For this reason it is important that the windows are restored. It is also important that the restoration is authentic.

Fortunately, there is a good deal of physical evidence to support the restoration proposals, such as in the way the altered sections have been jointed (often rather crudely) and the existence of old housings for the hinges of original shutters, now long disappeared in most areas.

HKJC commissioned the Timber Research and Development Association (TRADA), based in the United Kingdom, to carry out a sample analysis of the timber components in a variety of locations. This revealed that various timbers were used across the site and even within a particular building. Perhaps most notably, the Police Headquarters Block contains Teak, Kapur (a Malaysian hardwood) and Hemlock (a softwood). These timbers appear to have been used at different times during the life of the building and their existence reflects the alterations and repairs that took place over time, as well as the relative importance of certain areas

or rooms over the others (for example using more expensive Teak in the rooms of higher significance).



Bright blue was applied to the windows in recent decades



Dark brown was the original colour used for painting the windows

The paint analysis shows that the joinery at the Police Headquarters Block was originally painted dark brown externally. Whereas this may seem odd when applied to an expensive material such as Teak, it would guarantee a consistent external appearance, bearing in mind the different timbers used, and it would have been easier to maintain compared with a varnish finish. Internally, the finish was

clear varnish, and this was applied to all interior joinery as well as the inside faces of the external joinery.

The Central Magistracy (built in 1913) was finished in a similar way to the Police Headquarters Block (built in 1919). All other buildings within the Police Compound were finished externally with

dark brown paint originally though the colour schemes changed over time, sometimes quite dramatically. Internally, joinery appears to have been painted consistently throughout, perhaps reflecting the relatively low status of the other buildings compared with the former two buildings.

Repairing Timber Windows and Doors

All the joinery items were itemised and recorded. These were then carefully removed from the buildings, stripped of the multiple layers of paint, and defective sections cut out and replaced. Where appropriate, broken glass panes were replaced. The joinery was then painted on the external surfaces, and finished with a clear varnish on the interior surfaces. Ironmongery for each door or

window was carefully repaired, polished and reinstalled. In the situations where items were broken beyond repair, new joinery items have been made using carefully sourced timbers, and replica ironmongery items procured following the original designs so far as possible.

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