

# **Concrete for War, Heritage in Peace: The Heritage of War Architecture**

**戰爭與和平：戰爭建築文化遺產**

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**The Most Common Form of War Architecture:**  
**“Bunker” 「掩蔽體」**

# Definition of “Bunker”

What is a “Bunker”? 掩蔽體

- Any kind of **construction that protects an individual** from the weapons of his enemy can be called a “bunker”: bomb shelters, tornado refuges, guard posts, all of these can count as bunkers. (from the article “FNG Tactics: Bunkers,” by Darby Eckles, p. 1)

What is a *Military* “Bunker”?

- A fortification 強固防禦工事 set mostly below the surface of the ground with overhead protection provided by logs and earth or by **concrete** and fitted with openings through which guns may be fired. (infoplease / Dictionary.com)
- A fortified chamber mostly below ground often built of **reinforced concrete** and provided with embrasures. (Merriam-Webster Online Dictionary)
- (Military / Fortifications) an underground shelter, often of **reinforced concrete** and with a bank and embrasures for guns above ground. (The Free Dictionary)

A bunker is an partly or fully underground **reinforced concrete** fortification

地下或半地下的**鋼筋混凝土**防禦建築體

## **Modern Bunker Types** 現代掩蔽體類型

### **Military Types** 軍事類型 (usually constructed underground or into hills)

**Foxhole** 散兵坑

**Trench** 戰壕

**Ammunition / Explosives Magazine** 彈藥庫

**Ordnance Depot** 軍火庫

**Air Raid Shelter** 防空洞

**Pillbox** 碉堡, 機槍堡

### **Civilian Types** 民事類型 (usually built in the basement of houses)

**Air Raid Shelter** 防空洞

**Fallout Shelter** 核戰避難所

**Tornado Shelter** 龍捲風避難所



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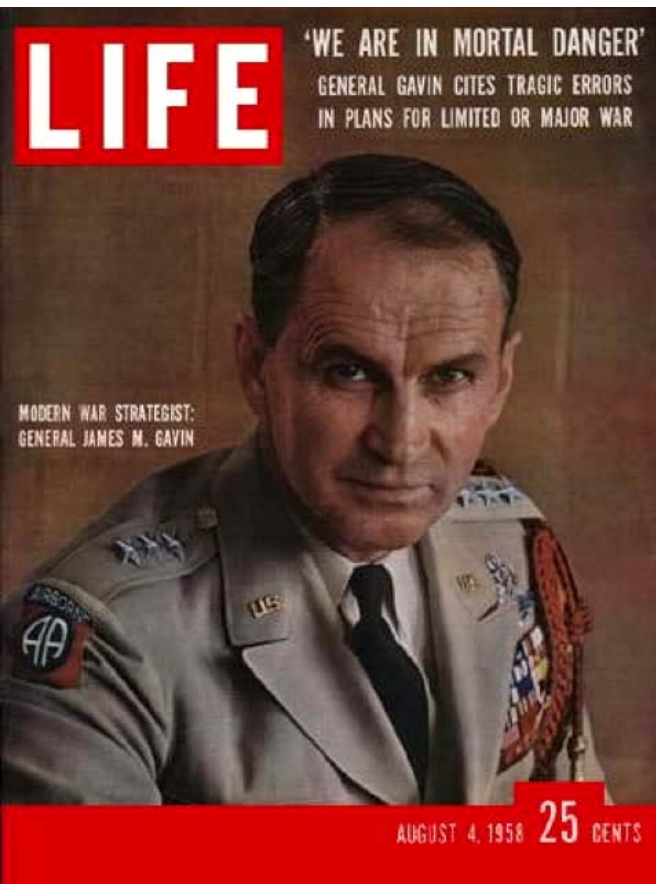
# Foxhole 散兵坑



**SOLDIERS FIRING TO THE FRONT**



# Conservation of Historic Foxhole



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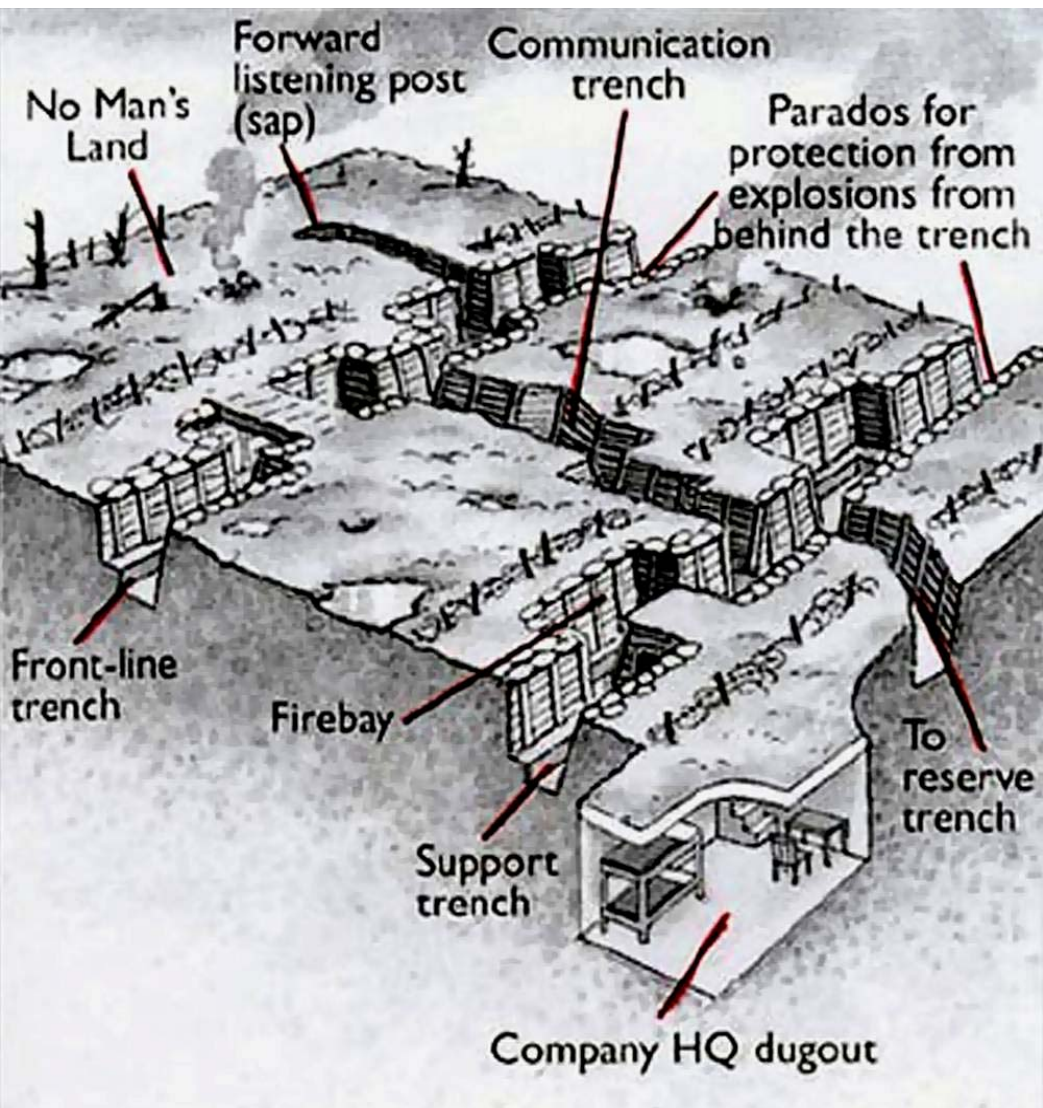
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# Trench 戰壕





# Conservation of W.W.I Trenches as Battlefield Monument in France



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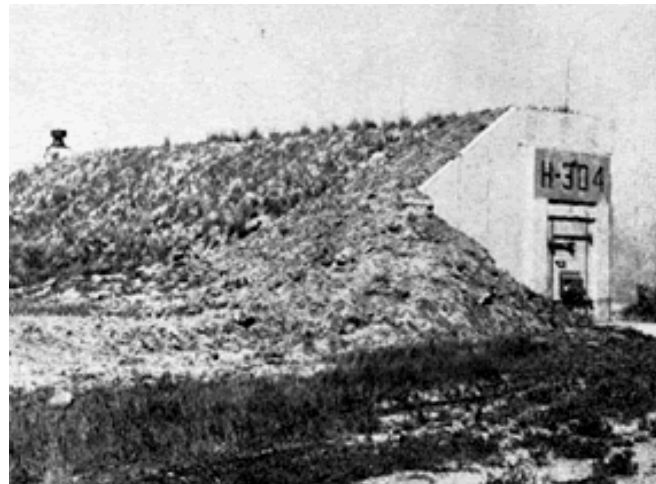
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# Ammunition Magazine 彈藥庫



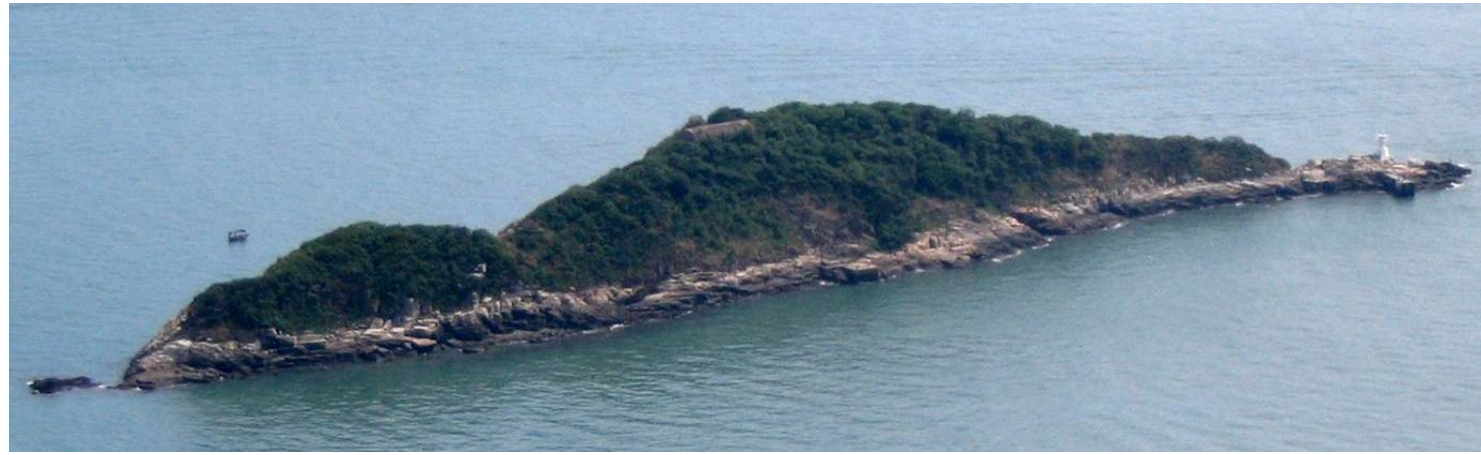
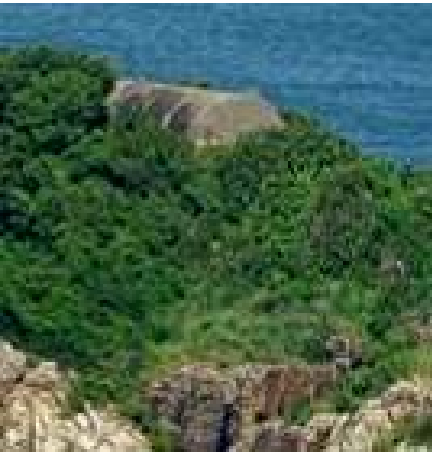
Explosives Magazine, Magazine Bay,  
Lyttelton Harbour, NZ, 1870s



Magazine Island (Cole Island), Victoria BC, 1850-60s



# Ammunition / Explosives Magazines in Hong Kong



Magazine Island (火藥洲), Aberdeen, Hong Kong, 1880s



Former Explosives Magazine Complex: Magazine A (1860s) and Magazine B (1900s-1920s)



# Conservation of Historical Explosives Magazines at Admiralty, Hong Kong



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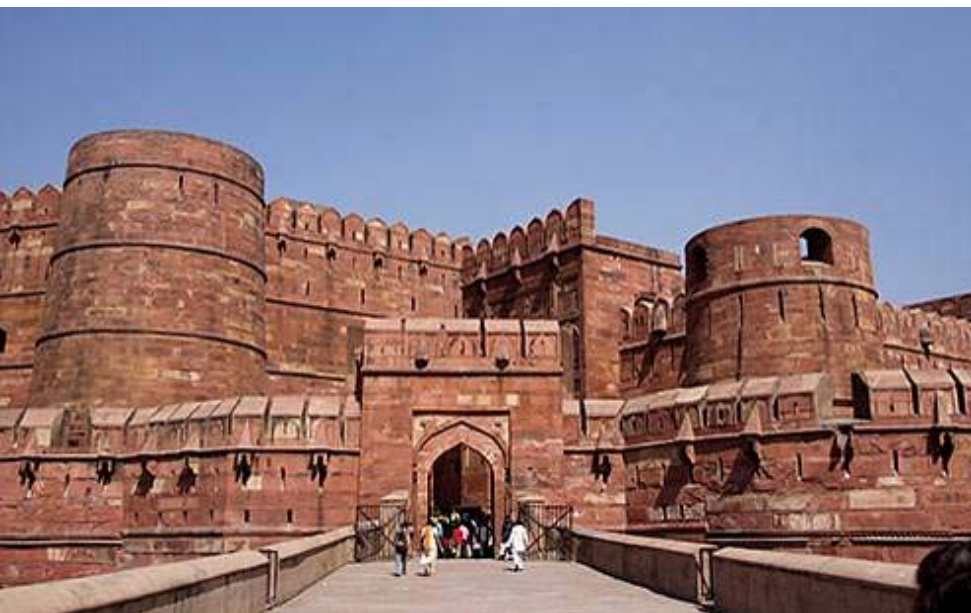
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# Ordnance Depot 軍火庫



# Central Ordnance (Munitions) Depot in Hong Kong at Shouson Hill



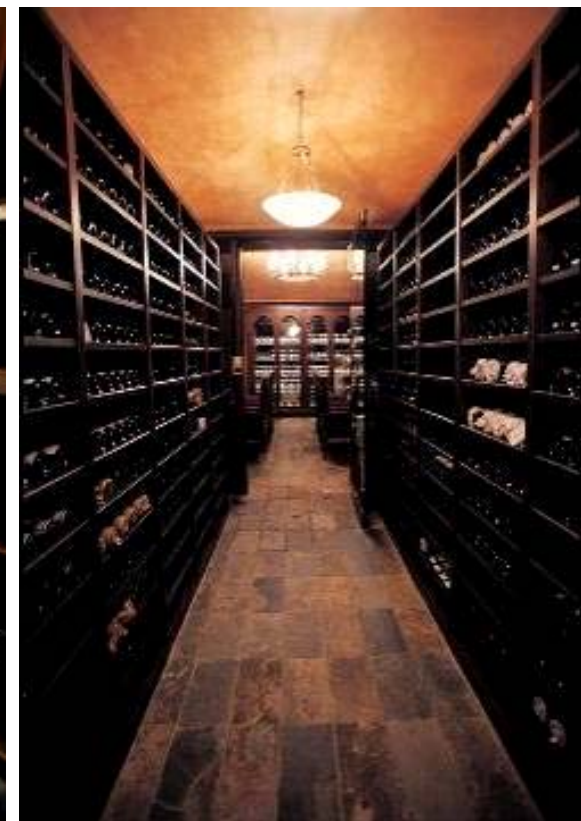


# Conservation of Historical Ordnance Depot in Hong Kong

## Crown Wine Cellars

Five bunkers of the former **Central Ordnance (Munitions) Depot** at Shouson Hill have been conserved and adapted by Crown Wine Cellars as a commercial wine cellar facility.

It won the Award of Merit in the 2007 UNESCO Asia-Pacific Heritage Awards for Cultural Heritage Conservation.



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# Air Raid Shelter 防空洞





# Air Raid Shelters in Hong Kong

**Hongkong Telegraph.**

PICTORIAL SUPPLEMENT  
SATURDAY, AUGUST 17, 1940



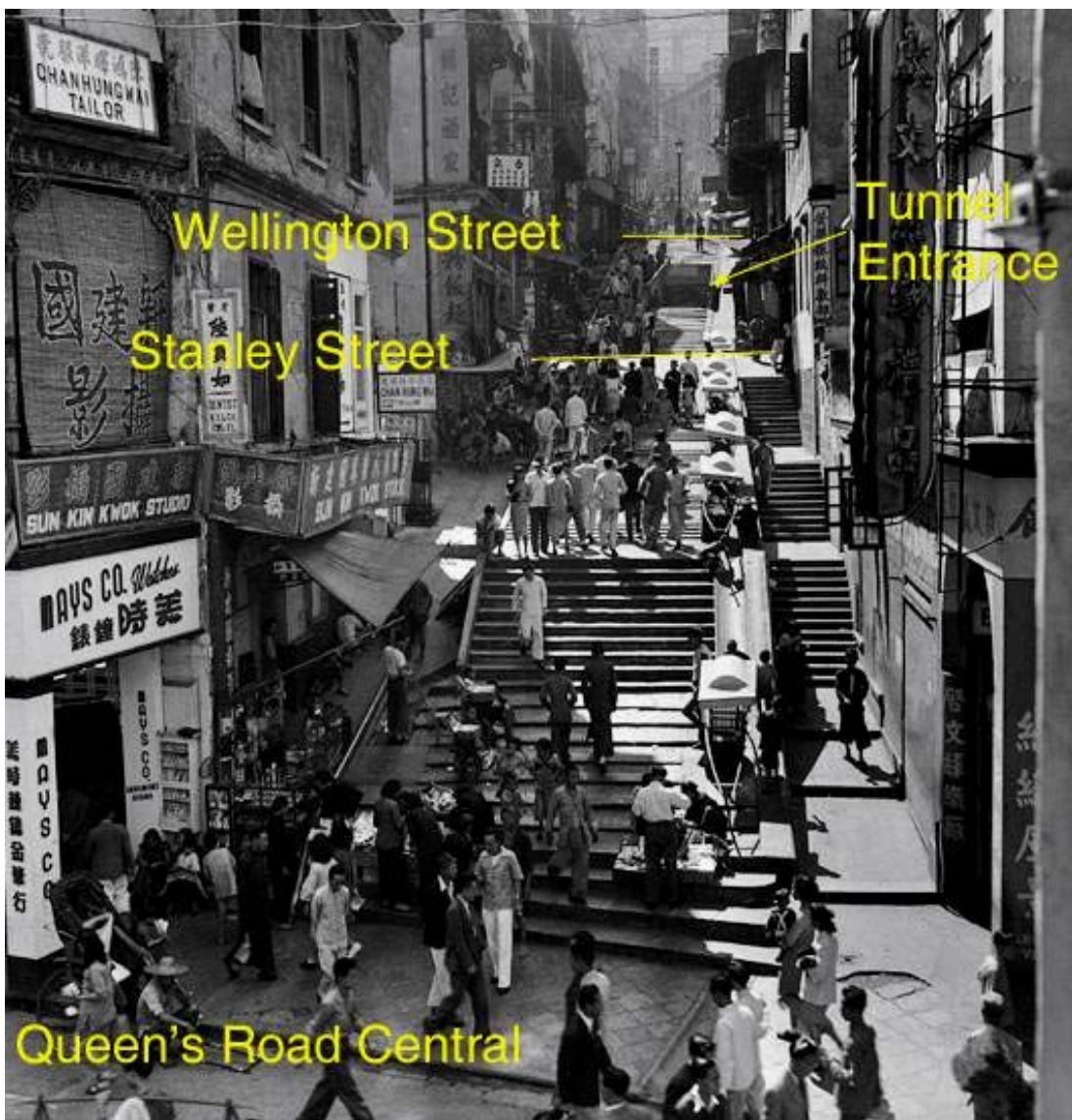
**A.R.P. TRENCHES** An extensive air-raid shelter is being prepared at the Southern Playground, Wanchai. These pictures, specially taken for the "Telegraph" show work under way during the week—a grim background for children's swings.—Ming Yuen.  
**—AT WANCHAI**



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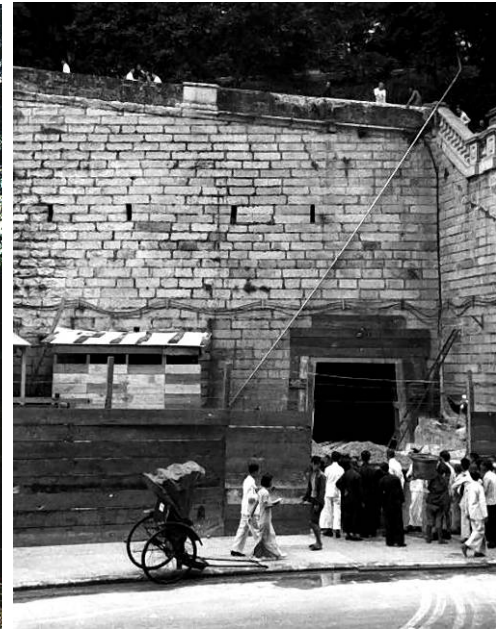


# Air Raid Shelters in Hong Kong





# Air Raid Shelters in Hong Kong





# Conservation of Air Raid Shelters: The Battle Box in Singapore



<http://www.singaporevr.com/vrs/BattleBox/SurrenderConference.html>

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# **20th-Century Pillboxes**

## 二十世紀碉堡



# Origin of the Typology

The modern pillbox typology was created by the German military around 1915 during W.W.I (1914-18) and was called *Mannschafts Eisenbeton Unterstände* (reinforced concrete crew dugout 鋼筋水泥人員掩蔽壕). The Allied copied the idea and named the type **fortified machine gun emplacement** 機關槍強固陣地.





# Origin of the Name

The long-winded “fortified machine gun emplacement” became the simple “**pillbox**” in popular British military slang because of its resemblance to the medicinal pill box, and the word entered the Oxford English Dictionary in 1917. In American usage, “bunker” is commonly used in lieu of “pillbox.”



[www.dorsetforyou.com](http://www.dorsetforyou.com); [plerburgh at flickr.com](https://www.flickr.com/photos/plerburgh/); [www.birtwisle.com](http://www.birtwisle.com)



[www.walshbrothers.co.uk](http://www.walshbrothers.co.uk); [www.replacements.com](http://www.replacements.com); [www.monsoon.co.uk](http://www.monsoon.co.uk)



# Pillbox in the 21st Century



The pillbox is an **obsolete** defensive system in the 21st century. It is completely **ineffective** against today's weapons technology and mobile war tactics.

“In the present day, with advanced intelligence, surveillance and reconnaissance sensors and precision-guided munitions, [a defensive line of pillboxes] would probably not have survived longer than the first hour of a war.”

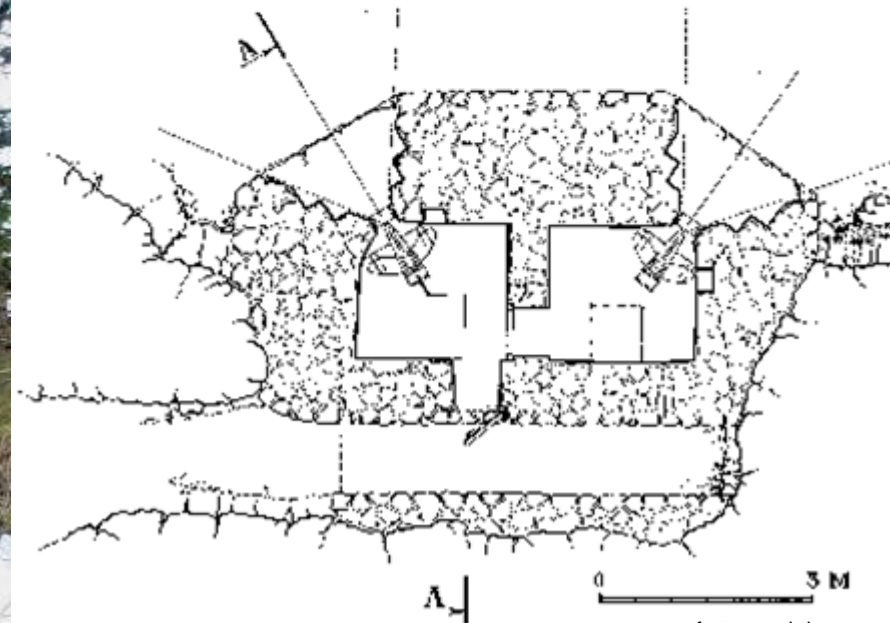
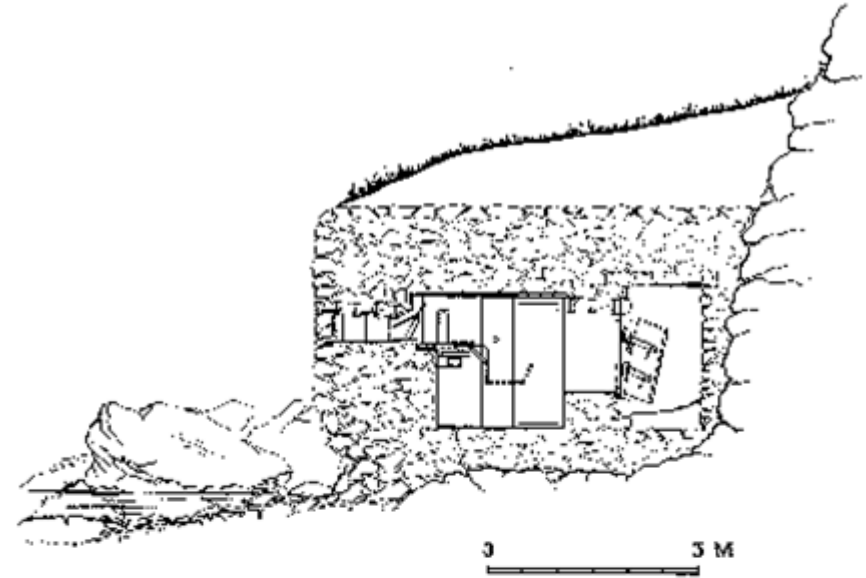
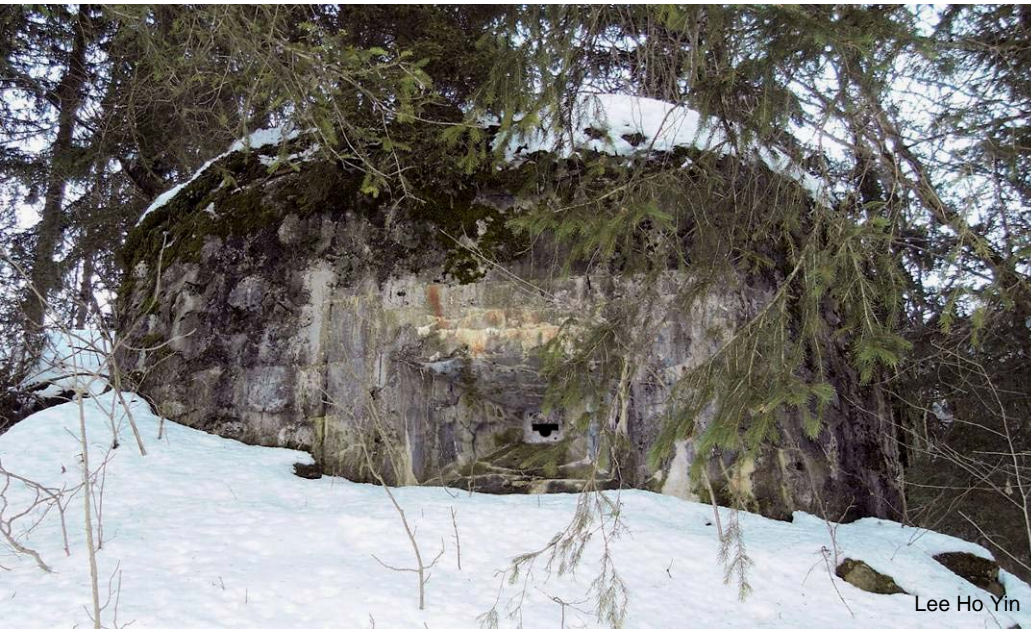
Quoted from Joris Janssen Lok in “Austria Clears Line of Buried Tank Turrets,” blog posted at *Defense Technology*, at [www.aviationweek.com](http://www.aviationweek.com), 23 July 2008.





# Classic Pre-W.W.II European Pillbox (Machine Gun Emplacement)

Swiss pillbox of stone-and-concrete construction, for defending mountain passes



# Classic Japanese Coconut-log Pillbox (Machine Gun Emplacement) Pacific War (1941-45)

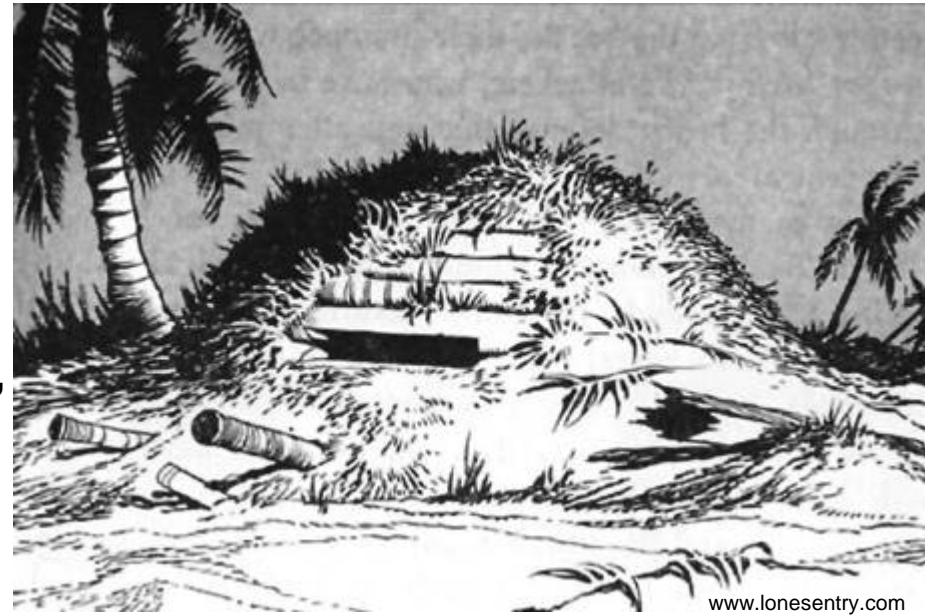
“A [Japanese coconut-log pillbox] usually contained two machine guns, with each gun laid on a fixed line. In no instance were two guns laid on the same line. The firing ports of the bunkers were very close to the ground.

Each [pillbox] was constructed of coconut and ironwood logs, from 18 to 24 inches in diameter, fastened together with a standard staple that the Japanese issue for this purpose.

The log frame, about 14 feet square and having an interior height of 7 feet, then was covered with a dome of sand. The sand was piled so high that the roof was covered with 3 to 5 feet of sand at the eaves.

The interiors of some of the bunkers were lined with sandbags to lessen the effect of explosives which might be fired or hurled into the bunkers.”

Quoted from:: “Defenses of Cape Torokina,” in *Intelligence Bulletin* (美國軍部情報期刊), October 1944 issue, published by the US War Department.



# **Tank-turret Pillboxes**

## 坦克砲塔碉堡



# Tank-turret Pillbox (Anti-tank Gun Emplacement)

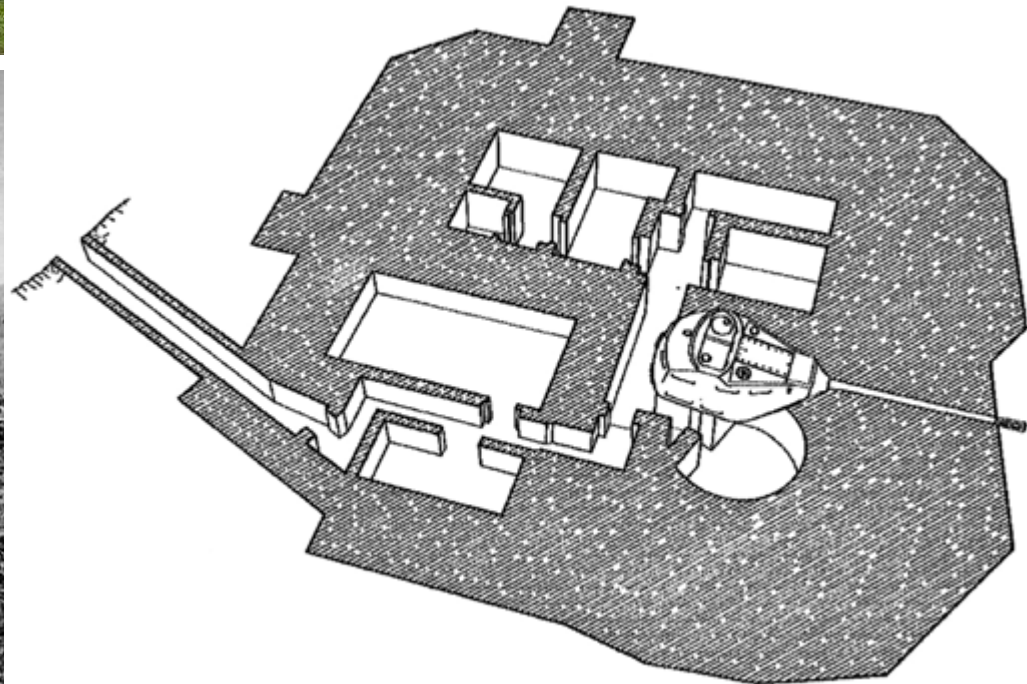
World War II (1939-45) to Cold War (1947-1991)



“The interwar period [between WWI and WWII] saw the pace of tank development quickened . . . This . . . left large numbers of outmoded tanks to be disposed of. In the Soviet Union, . . . the scrapping of perfectly serviceable turrets was deemed wasteful and in 1931 the idea of using tank turrets as fixed fortifications was advanced.”

“. . . this [fortification] philosophy continued well into the Cold War when obsolete tanks were mothballed or their turrets removed and used in fixed positions.”

Quoted from: Neil Short, *Tank Turret Fortifications* (2006), p.9.





# Tank-turret Pillbox (Anti-tank Gun Emplacement)

## World War II (1939-45) to Cold War (1947-1991)



### Austria Clears Line of Buried Tank Turrets

Posted by Joris Janssen Lok at 7/23/2008 2:07 AM CDT

Austria has cleared the last of 50 buried 105-mm. tank turrets, installed in 1983 as an anti-invasion line of defense in one of its eastern provinces.

The turrets, peeking out just above the ground with the bunker in which they were mounted hidden below the surface, were meant to engage hostile armor at a range of out to 2,000 meters, the Austrian defense ministry says.



The last turret is hoisted from its base where it has been for a quarter of a century. Photo: Austrian armed forces

EXPECTED DIRECTION  
OF TANK ATTACK



DIAGRAM (C): A.J. FOTOČNIK, 2005



In addition to the 50 tank turrets, the line of defense also included the preparations for some 300 anti-tank roadblocks.



The 13.5-metric-ton turret is carefully moved down the steep incline of the hill in which it was positioned. Photo: Austrian armed forces

Each turret position was crewed by seven troops. In the 1980s, the ministry claims, the line of defense was one of Austria's best-kept military secrets. (In the present day, with advanced intelligence, surveillance and reconnaissance sensors and precision-guided munitions, the line would probably not have survived longer than the first hour of a war).



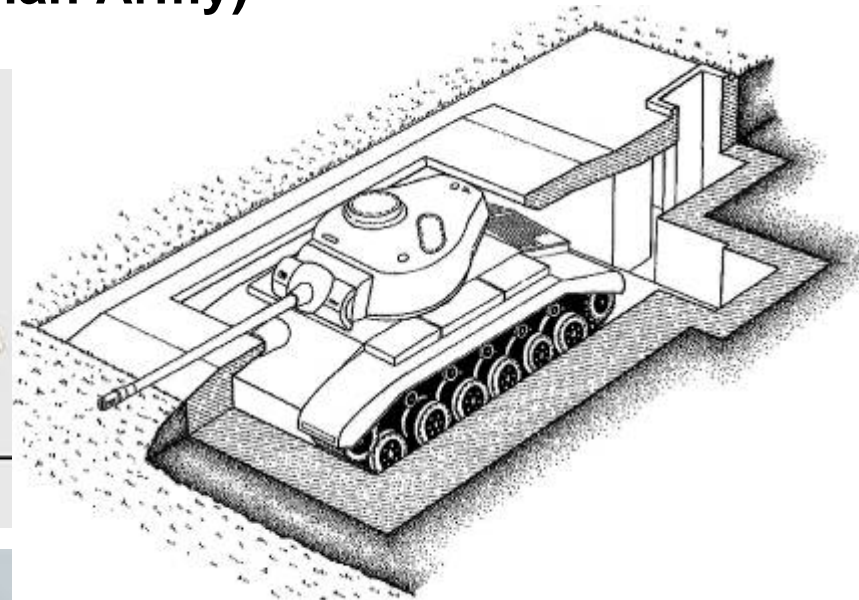
# Conservation of Arnie's Tank (M47, Austrian Army)

阿諾舒華辛力加的坦克車



**California Governor Arnold Schwarzenegger was a M47 tank driver during military service in the Austrian Army in 1965. 加州州長阿諾舒華辛力加於1965年服役奧地利陸軍，任M47坦克駕駛員**

# Conservation of Arnie's Tank (M47, Austrian Army)



Neil Short, Tank Turret Fortifications (2008), p.184



[www.mottsmilitarymuseum.org](http://www.mottsmilitarymuseum.org)

“... the Austrian government tracked down the decommissioned weaponry and had it unearthed (**it was buried as part of Cold War fortifications with just the turret above ground**). The tank was later shipped to the United States, where Schwarzenegger placed it on display as a loan to the Motts Military Museum in Groveport, Ohio [from 2000 to 2008].”

Quoted from: [www.redorbit.com](http://www.redorbit.com), article “Schwarzenegger has Taste of High Life,” posted on 15 Nov, 2003.



# **British W.W.I Pillbox**

## 英國一戰碉堡

# British Moir Machine Gun Pillbox (W.W.I)



Named after the designer, Sir Ernest Moir, an engineer by training, and Controller of the Invention Department, Ministry of Munitions during W.W.I.

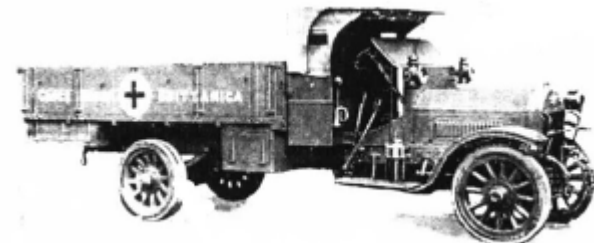
Designed for mass production and on-site assembly, some 1,900 manufactured, and about 800 installed on the battlefields of W.W.I.

Produced in kit form with instructions and tools to assembled the prefabricated components, which consisted of 48 concrete blocks, for domed roof-sections, a girder, reinforcing rods, a bulletproof ring, and a Vickers machine-gun mounting.

The entire assembly, weighing 4.8 tonnes, could be carried by four W.W.I lorries, and erected in one day by a team of 4 sappers (engineering-trained soldiers) and 8 labourers (ordinary soldiers), led by an army corporal with surveying skills.

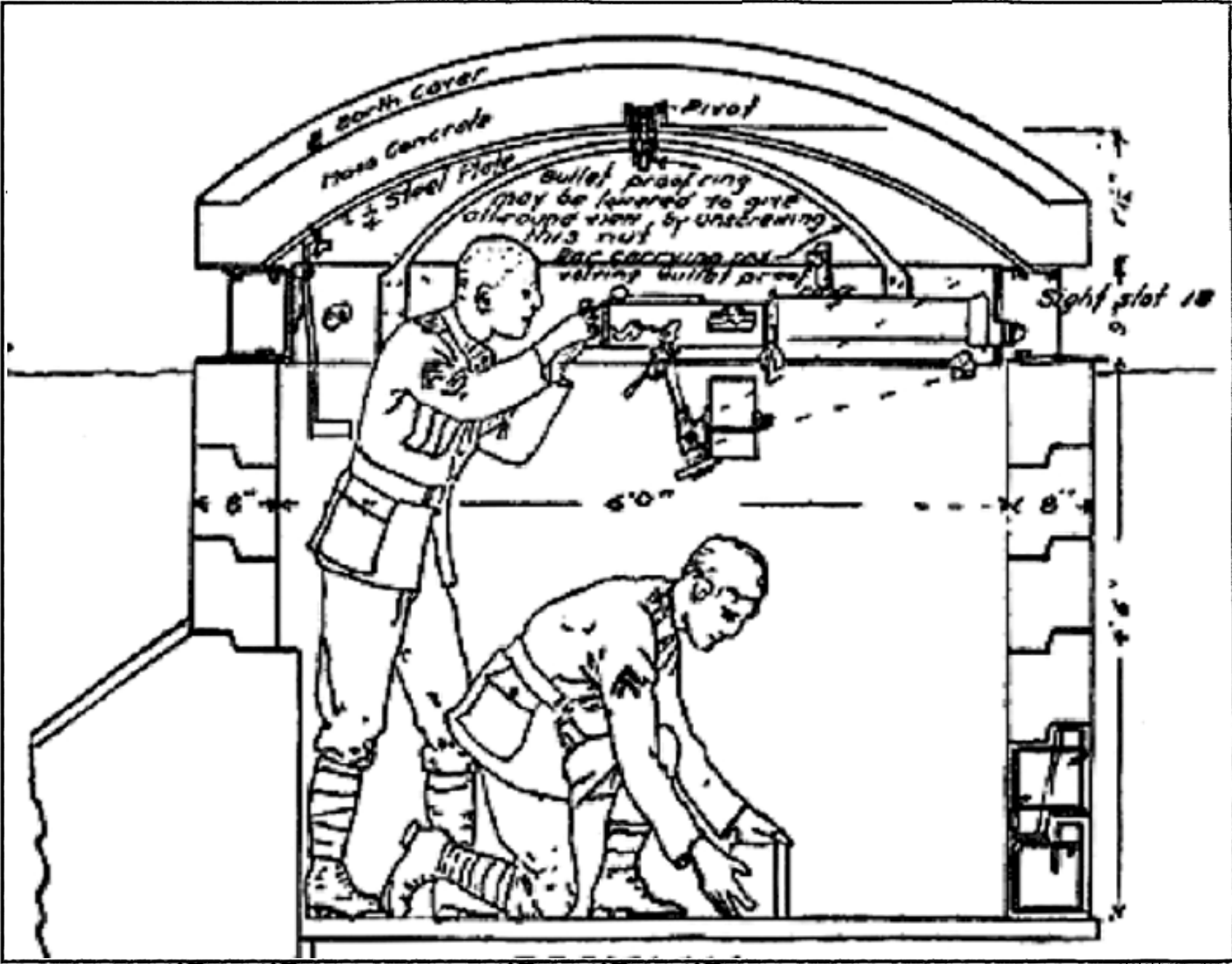


Text adapted from: Mike Osborne, *Pillboxes of Britain and Ireland* (Stroud, Gloucestershire: Tempus Publishing, 2008), p.45.





British Moir Machine Gun Pillbox (W.W.I)



# **British W.W.II Pillboxes**

## 英國二戰碉堡



# British Type 22 Pillbox (W.W.II)





# British Type 22 Pillbox (W.W.II)

The Type 22 is the most common pillbox type with 1,209 recorded as being extant [in the UK].

In May 1940, the directorate of Fortifications and Works (FW3) was set up at the War Office to provide a number of basic pillbox designs which could be **constructed by soldiers and local labour** at appropriate defensive locations.

In the following June and July FW3 issued 6 basic designs for rifle and light machine gun, designated Type 22 to Type 27.

Text adapted from Wikipedia, sv “British hardened field defences of World War II.”





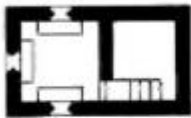
# British Type 22 Pillbox (W.W.II)



TYPE 22



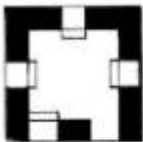
TYPE 23



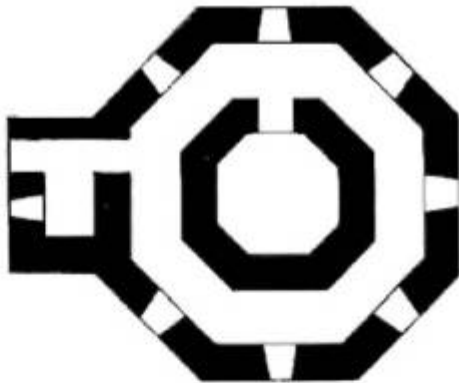
TYPE 24



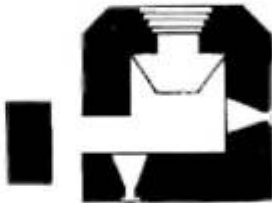
TYPE 26



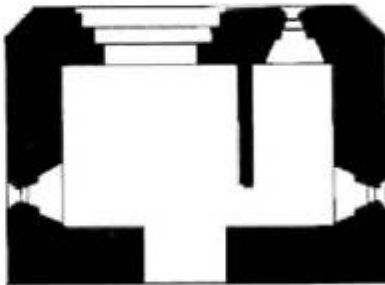
TYPE 25



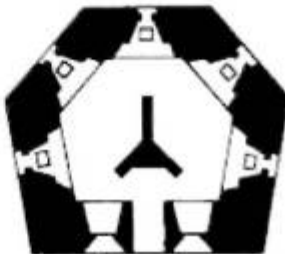
TYPE 27



VICKERS MMG  
EMPLACEMENT



TYPE 28A

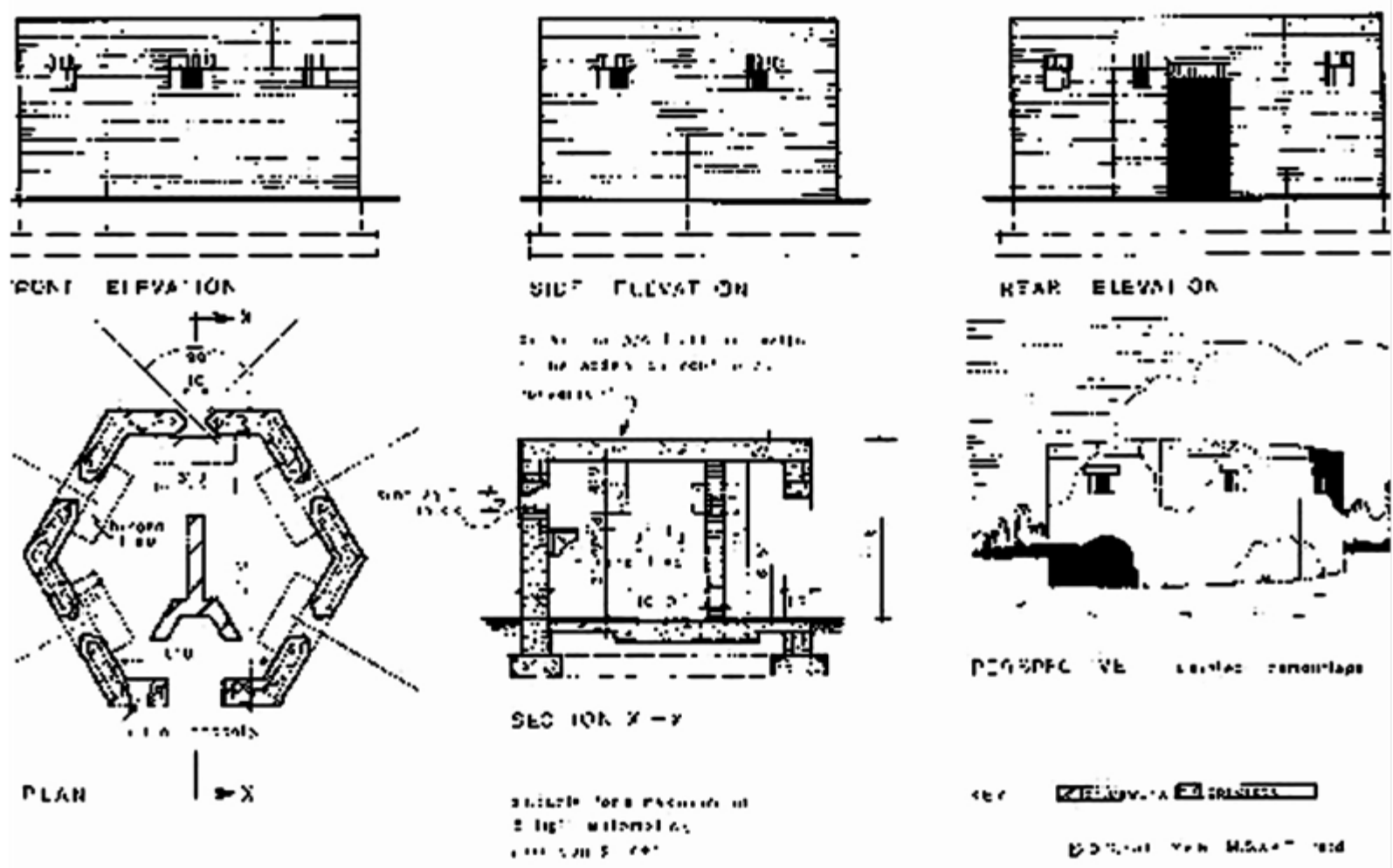


TYPE 24  
'THICK WALLED'

# British Type 22 Pillbox (W.W.II)

A simple design that was adaptable to such local conditions:

- 1. Construction: reinforced concrete superstructure on a foot-thick pad foundation
- 2. Labour: soldiers, local volunteers or unskilled labour with minimal supervision
- 2. Material: reinforced concrete, brick or stone



STRONG POSTS & PILLBOXES

TYPE 22

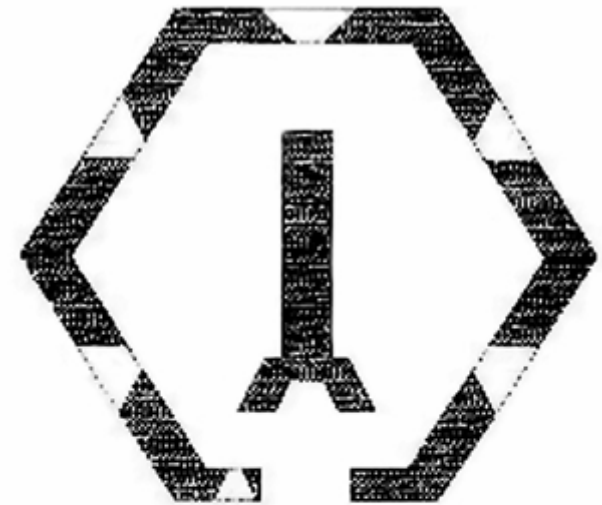


# British Type 22 Pillbox (W.W.II)

The type 22 pillbox is a regular hexagon in plan with an embrasure in five of the sides and an entrance in the other. The embrasures are suitable for rifles or light machine guns. Each wall, of about 6 feet (1.8 m) long and 12 inches (30 cm) thick, was resistant to bullet and shrapnel.

Internally there is a Y- or T- shaped anti-ricochet wall (the top of the Y/T nearest the entrance); the internal wall also helps support the roof.

Text adapted from Wikipedia, sv "British hardened field defences of World War II."



# British Type 22 Pillbox (W.W.II)

Instead of camouflaged, pillboxes located in urbanized areas were often disguised as small urban structures, such as newsstands, information booth, food kiosks, bus stops and small offices.



**Spot the pillbox! Type 22 pillboxes disguised as a church porch (left) and a refreshment kiosk (right).**



# British Pillboxes in Disguise

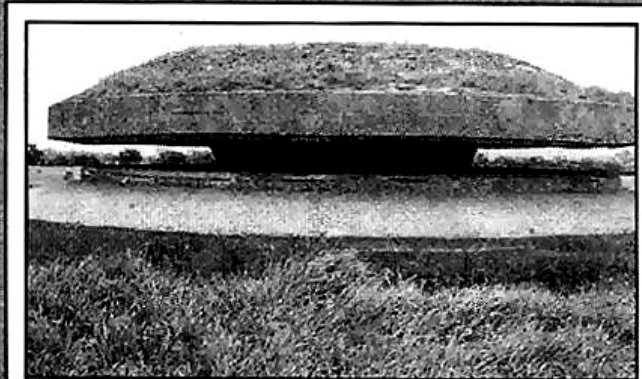


**A Type 26 pillbox disguised as a bus stop off a country road.**



**An unknown type pillbox disguised as a tourist information booth in Central London.**

# A RUINED RELIC SPARKS UPROAR



● GONE FOREVER: The Second World War pillbox which has now been demolished.

**R**ESIDENTS are angry that a Second World War relic has been demolished by workmen.

The wartime pillbox, used to watch for enemy bombing raids, was demolished during roadworks near the Toyota factory in Burnaston.

The concrete lookout post had lasted for more than 50 years and developers built around it when

## End of road for pillbox

by Damien Gaffney

pillboxes around that it has become common to find them being knocked down. It's not as if they are monuments, but they do represent a piece of history."

The Ministry of Defence, which originally owned all pill-



# Conservation of British Pillboxes



Last Updated: Saturday, 2 December 2006, 12:15 GMT

 E-mail this to a friend

 Printable version

## World War II pill box conserved

**A World War II pill box which formed part of the North Somerset inland defence has been conserved.**

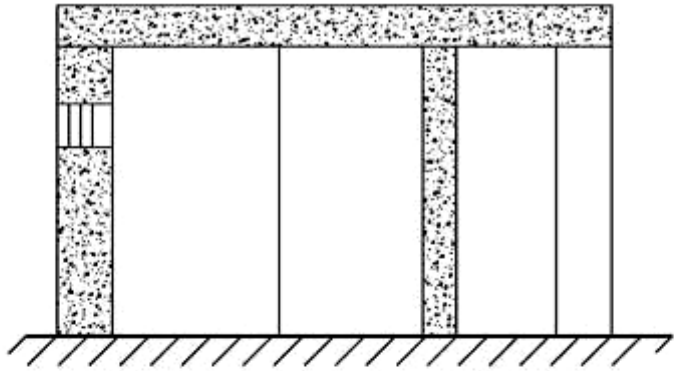
The pill box, at the entrance of Vale House in Roadwater, is a type 24 which was common to the south west area.



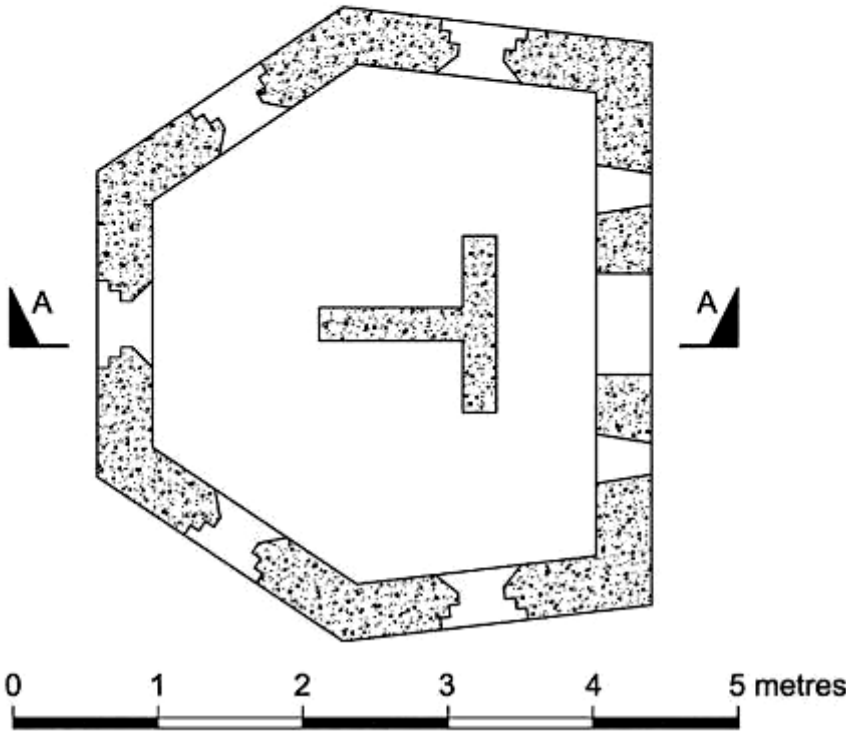
It is special as it was disguised as a small garden building with a pitched shingle roof and painted windows rather than simply camouflaged as most were.

The pill box is now a Scheduled Ancient Monument on Exmoor

Conservation of Pillboxes: 上海山寨版 Type 24 pillbox in Shanghai (Chinese Civil War)



P02 SECTION A-A





# **Pillboxes of Singapore**

## 新加坡的碉堡

# Singapore/Malaya Pillbox (W.W.II)

## Inland type

The design features a central observation cupola with two machine-gun slots.





# Singapore Pillbox (W.W.II)

Coastal type

The design features a central observation cupola with two machine gun emplacements.





# Singapore Pillbox (W.W.II)

## Coastal type

Singapore's coastal pillboxes were part of the island's coastal defence system. Together with coastal artillery, the pillboxes were sited along the east, south and west coasts of the island, in anticipation of an invasion from the sea (the north faces Malaya).

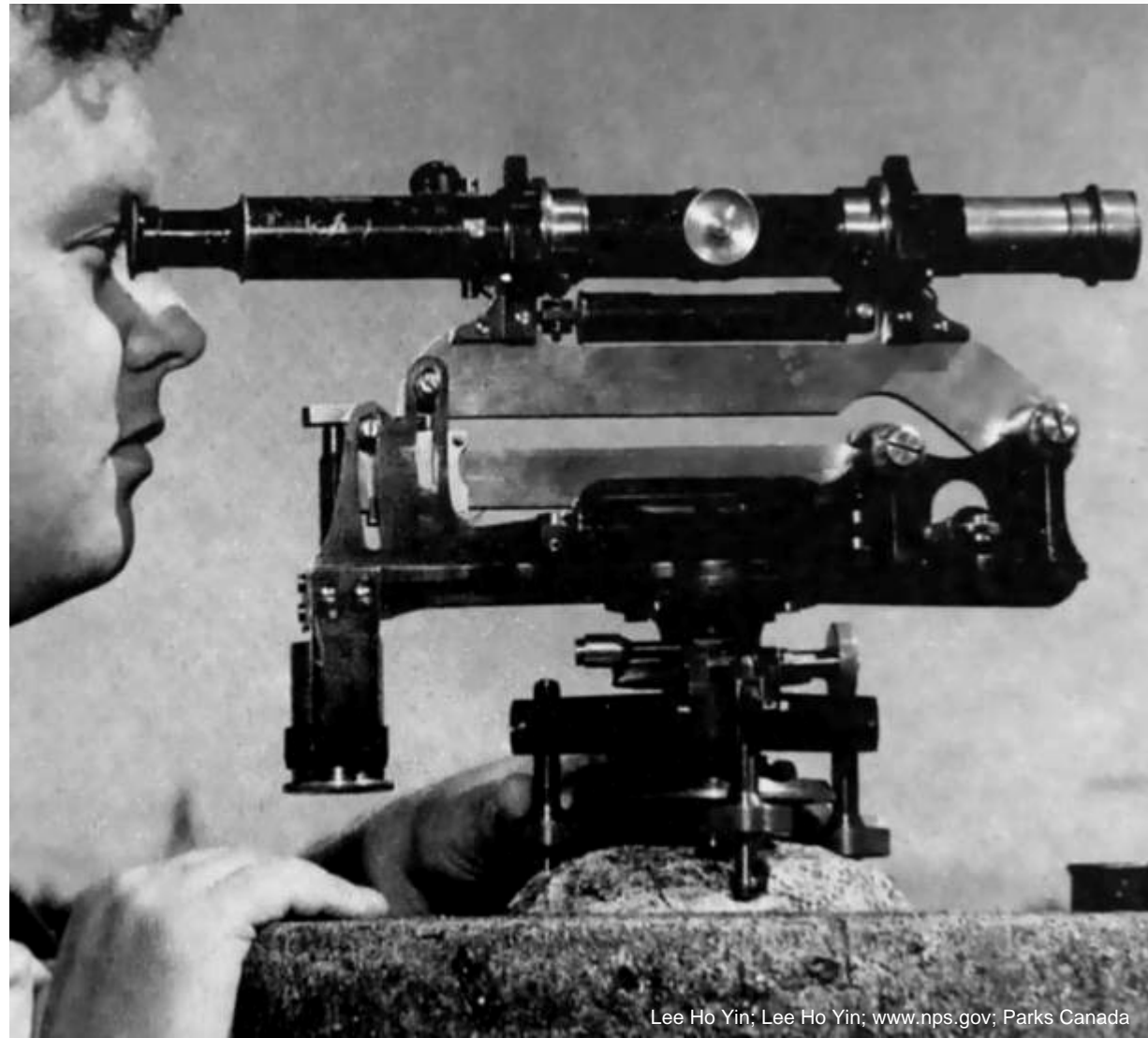




# Singapore Pillbox (W.W.II)

## Coastal type

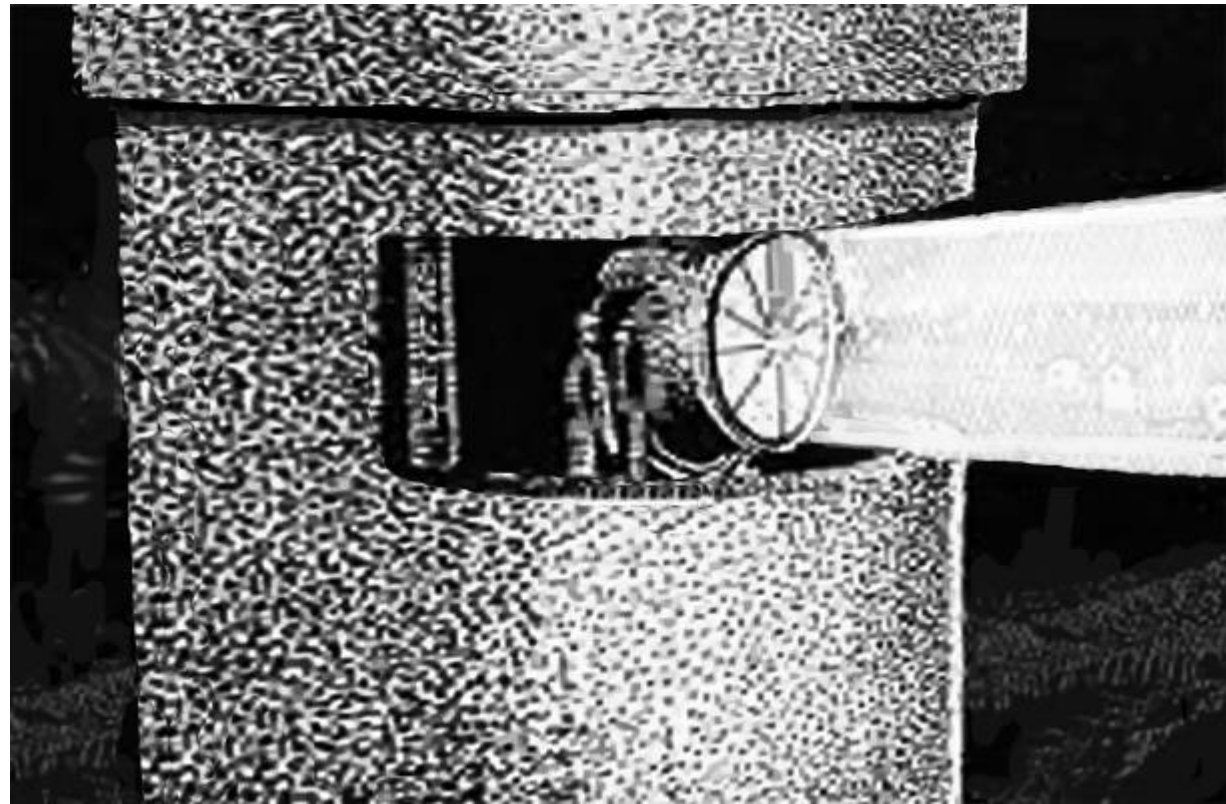
Inside the **observation cupola**, there is a concrete pedestal for mounting a **depression range finder to direct the nearby coastal artillery**, or a small search light to illuminate targets for the emplaced machine guns.



# Singapore Pillbox (W.W.II)

## Coastal type

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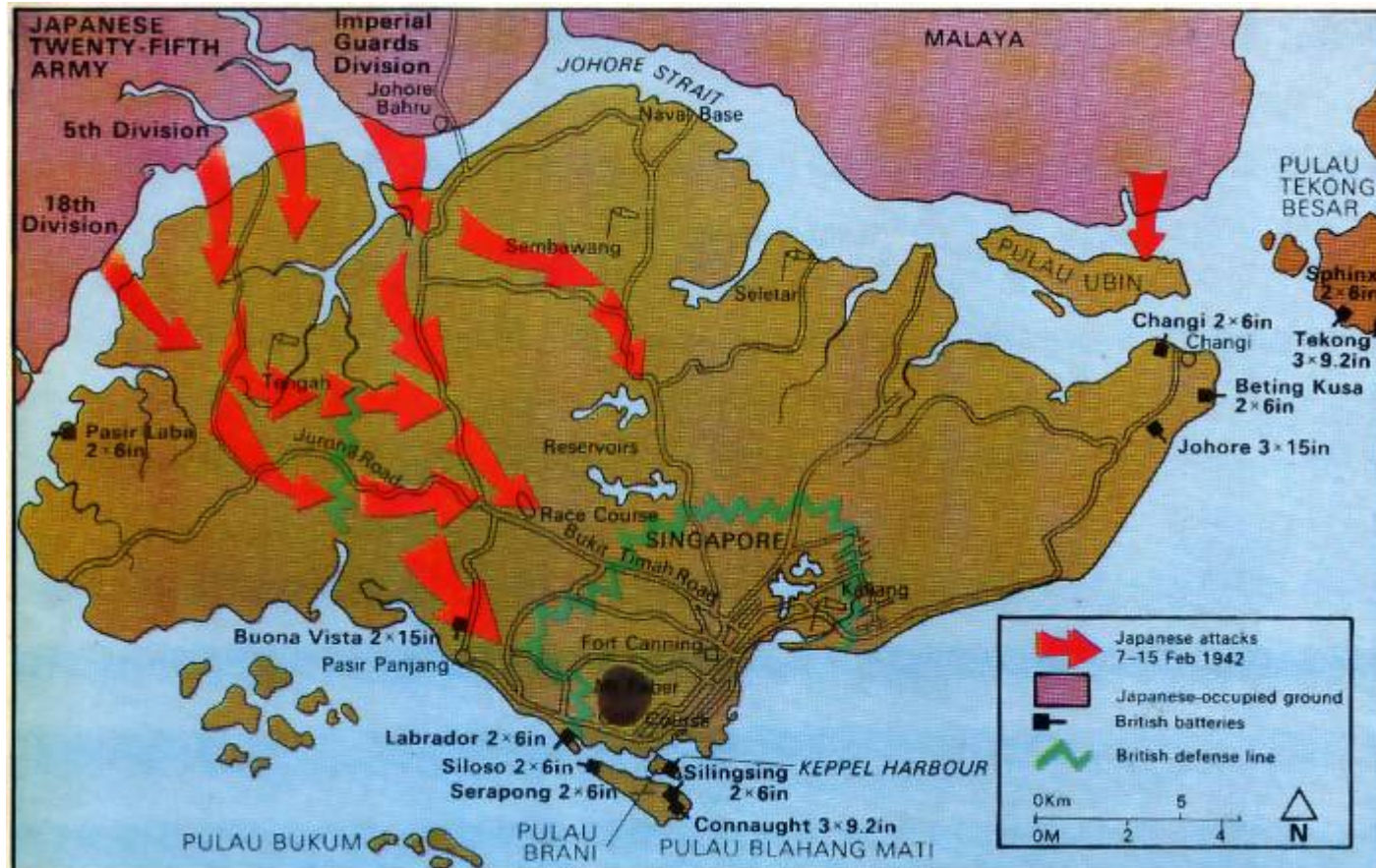


# Singapore Pillbox (W.W.II)

## Coastal type

### What's wrong with these pillboxes?

The Japanese Army invaded Singapore by land from the north, so the pillboxes were rendered useless as they were facing the wrong way.





# Conservation of Singapore Pillboxes





# **Pillboxes of Hong Kong**

## 香港的石堡

# Hong Kong Pillbox (British) at Central Vehicle Ferry Pier (demolished)



Hong Kong's "periscope shaft" type pillboxes, designed as machine gun emplacements, were built between 1938 and 1940.

The design has a unique feature: a prominent periscope shaft protruding through the roof at the centre of the superstructure.





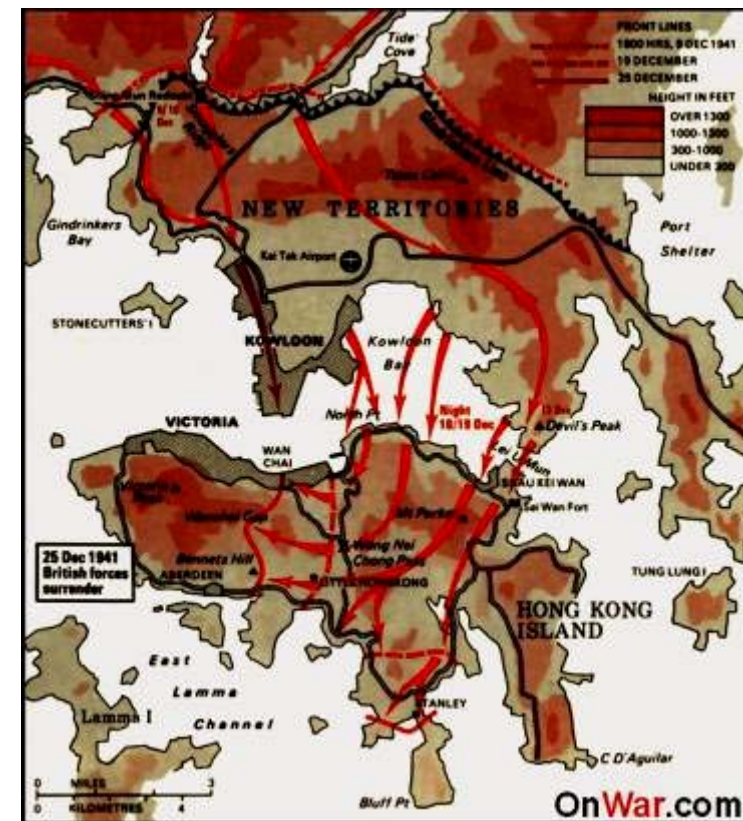
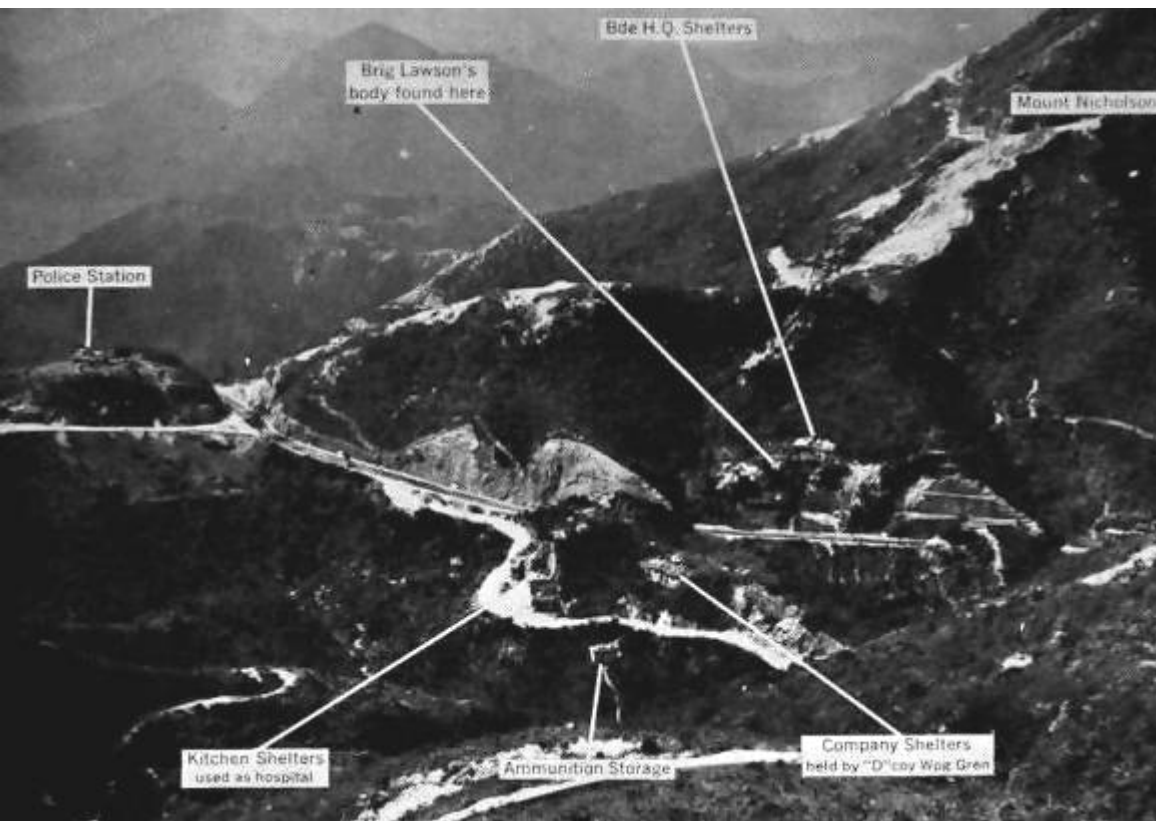
# Hong Kong Pillboxes (British) at Wan Chai, 1941 (demolished)



# Hong Kong Pillboxes (British) at Jardine's Lookout

Perhaps the most famous surviving pillboxes are two found at Jardine's Lookout, designated PB1 and PB2, overlooking Wong Nai Chung Gap.

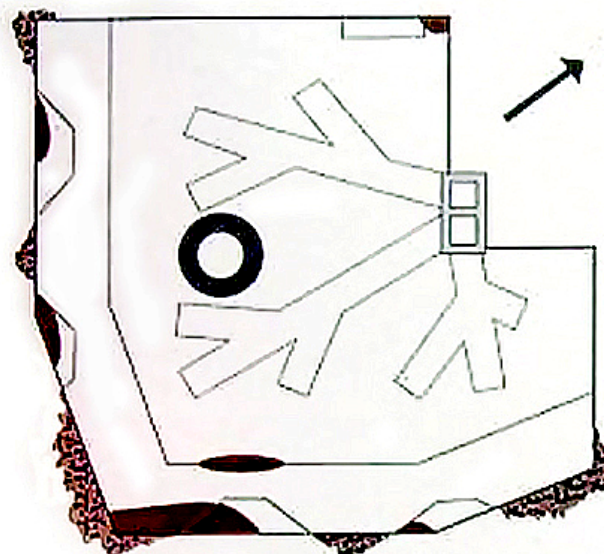
PB2 was partly destroyed during the Battle of Hong Kong in December 1941, while PB1 sustained minor battle damage.



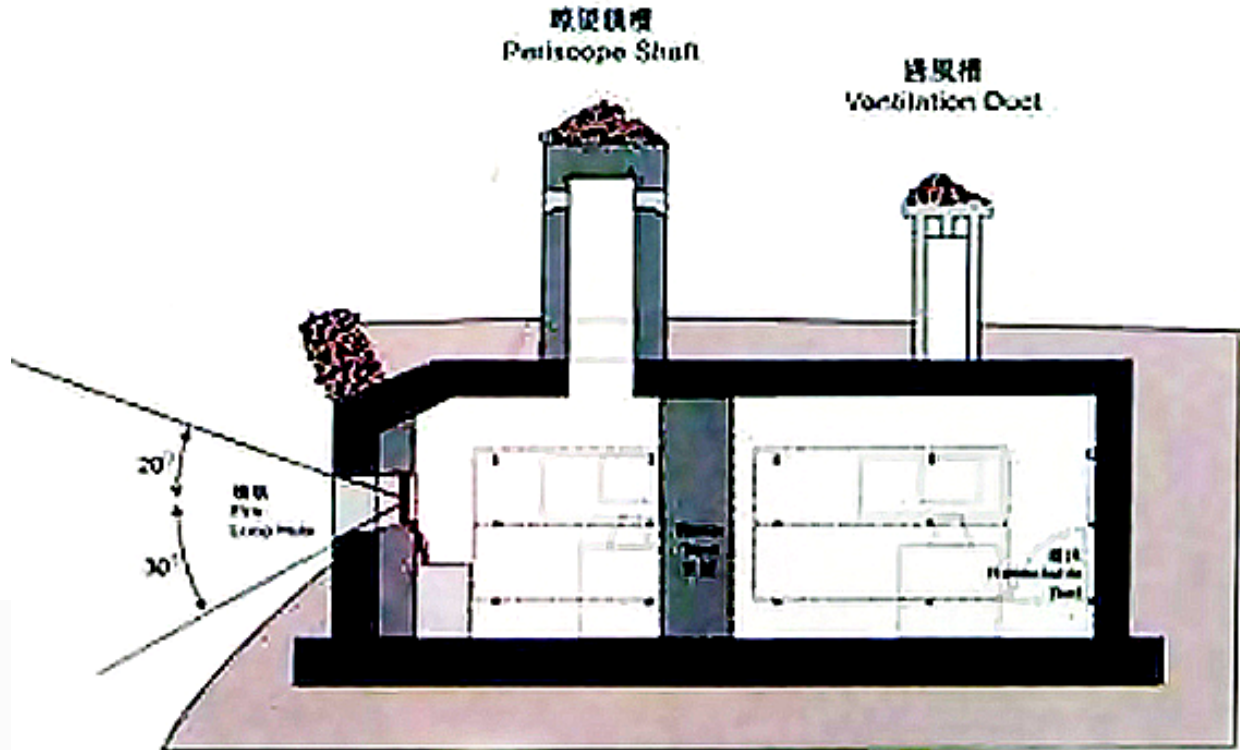


# Hong Kong Pillboxes (British) at Jardine's Lookout

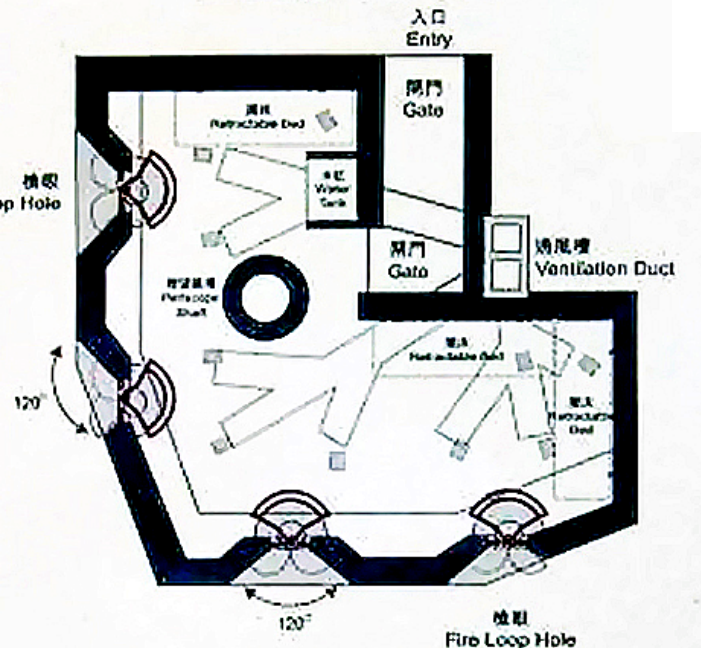
Top View



Cutaway Side View



Cutaway Top View



# Hong Kong Pillboxes (British) at Jardine's Lookout



## Periscope Is Built into Dugout

TAKEN "somewhere in France," the photograph above shows a soldier attached to a Scots regiment on watch in an underground concrete shelter. Using a built-in periscope, the sentry can scan the area on all sides of the sunken dugout, and obtain a clear view of any advance of the enemy without exposing himself to the fire of snipers or enemy patrols.

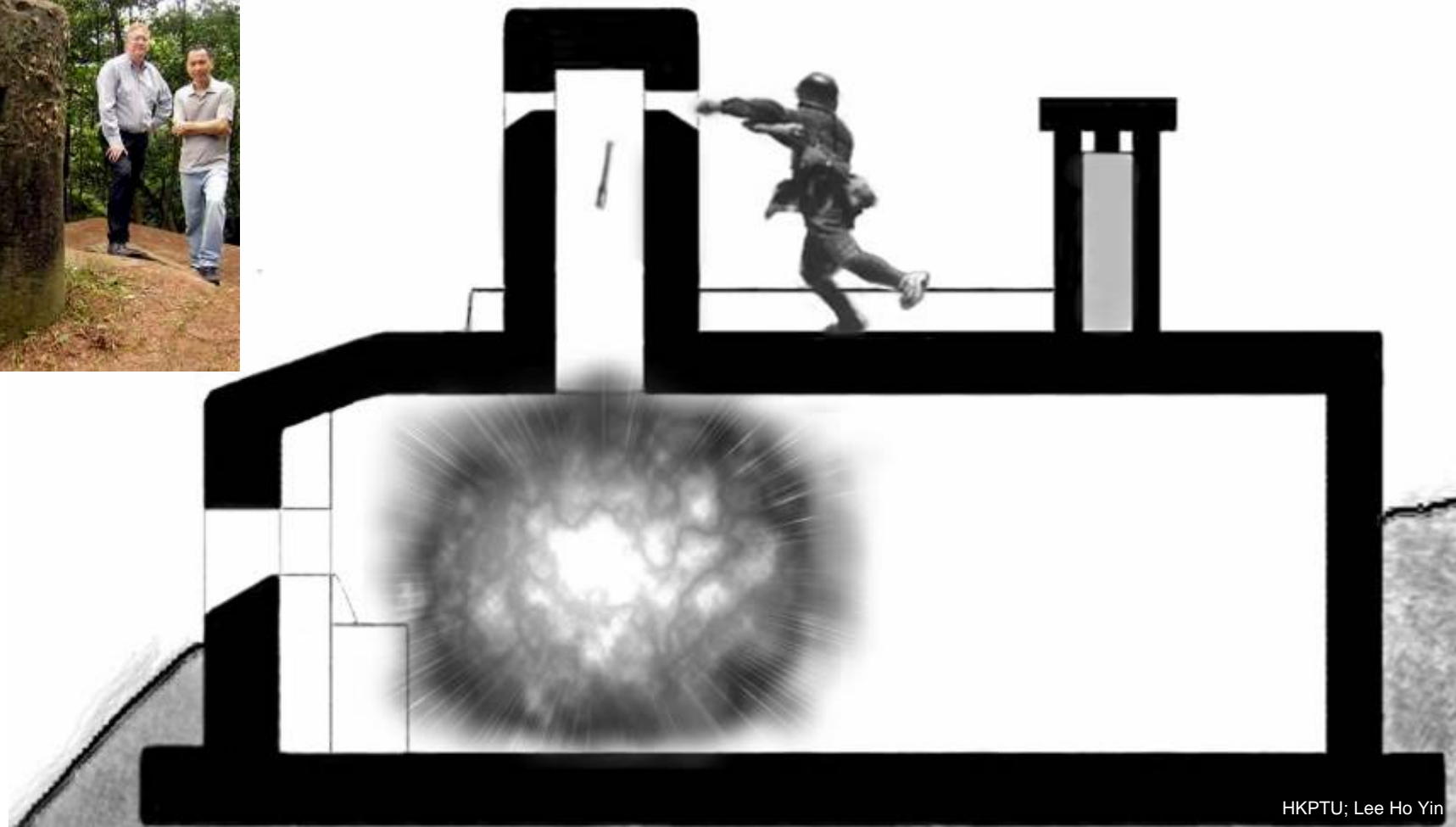


# Hong Kong Pillboxes (British) at Jardine's Lookout

## What's wrong with these pillboxes?

“[they] were ‘**very stupidly designed**. . . . They had a vent [the periscope shaft] in the top, and the Japs dropped their grenades down them.”

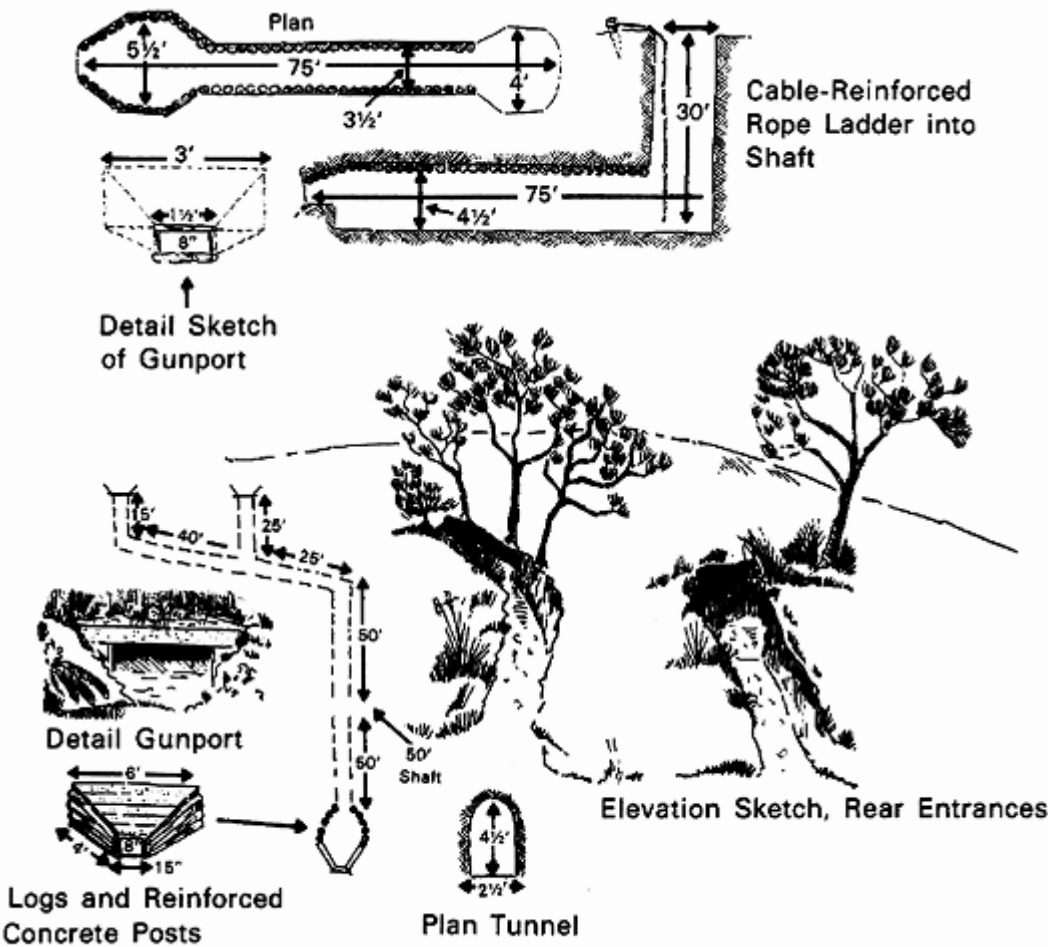
A Canadian veteran's comment on the design of the No. 1 Pillbox on Jardine's Lookout, quoted from: Brereton Greenhous, *“C” Force to Hong Kong: A Canadian Catastrophe, 1941-1945* (1997), p. 69.



# Hong Kong Pillboxes (Japanese) at Luk Keng (Grade II)



A system of 12 pillboxes and a command post, linked by tunnels, built into the hills of Luk Keng (鹿頸); similar in design to the type built on the island of Okinawa (below).





# Hong Kong Pillbox (Japanese) at Diamond Hill (Grade III)



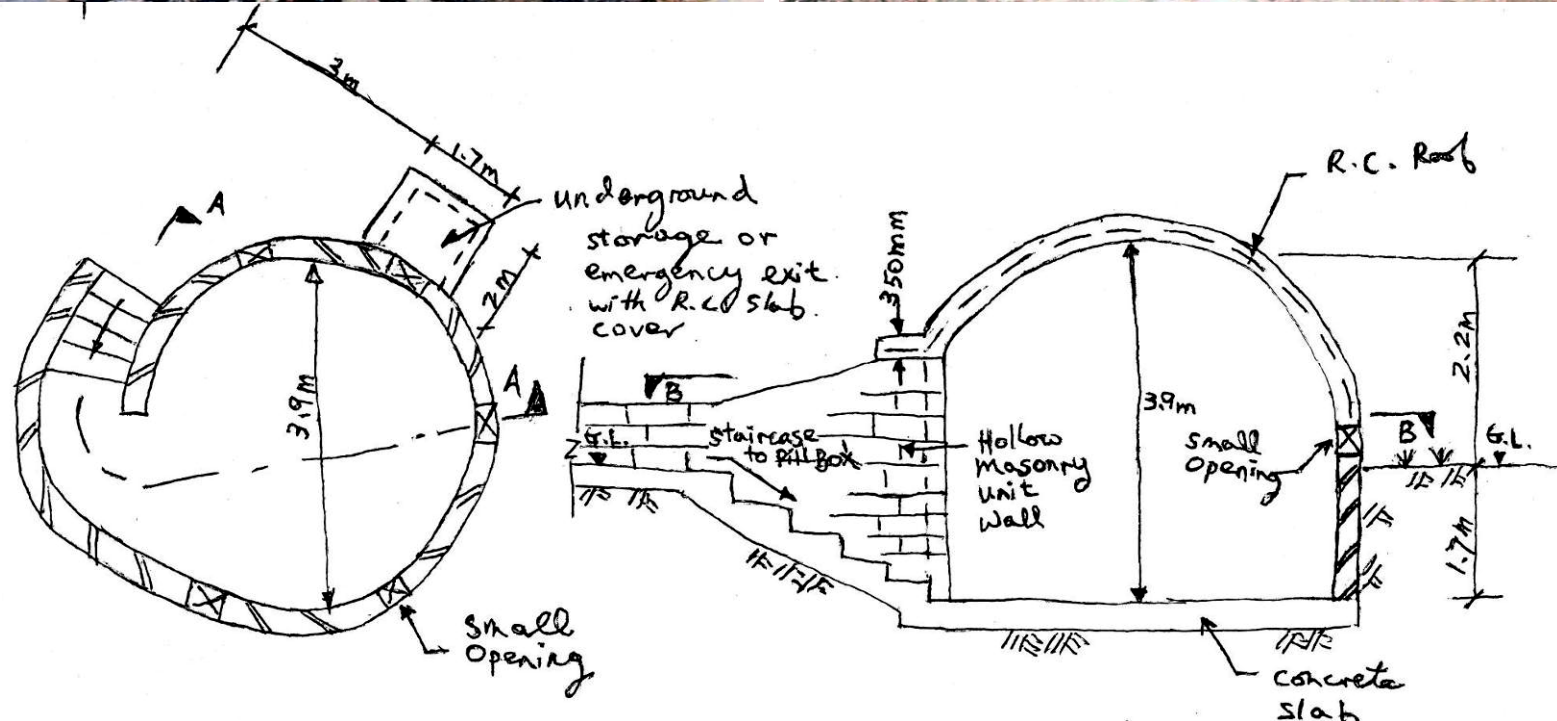
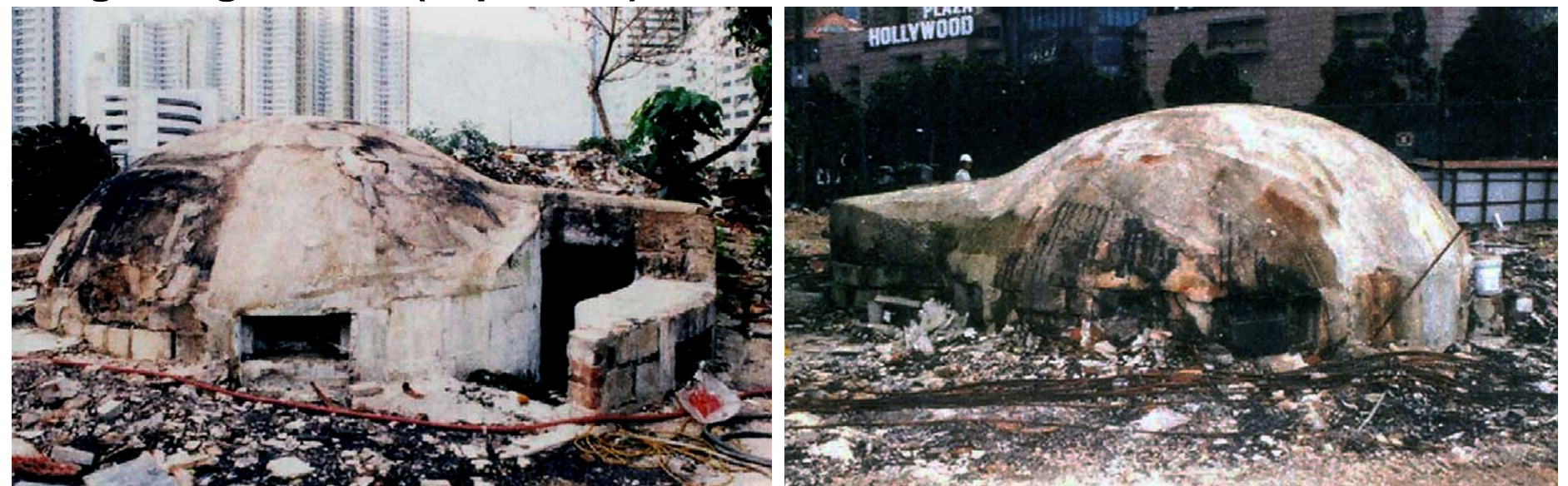
Pillbox in Tai Hom Village, Diamond Hill (鑽石山大磡村), built during the Japanese Occupation period (1941-45).



Standard Japanese pillboxes in Taisi 台西 (left) and Beijing (right); similar in design as the Diamond Hill pillbox, which is the **only known example in Hong Kong**.



# Hong Kong Pillbox (Japanese) at Diamond Hill (Grade III)



Measured drawings of plan and section of the Diamond Hill pillbox, surveyed and drawn by structural engineer Mingo Li



SCMP, 22 September 2009

## Councillors fear historic sites were downgraded to make way for depot

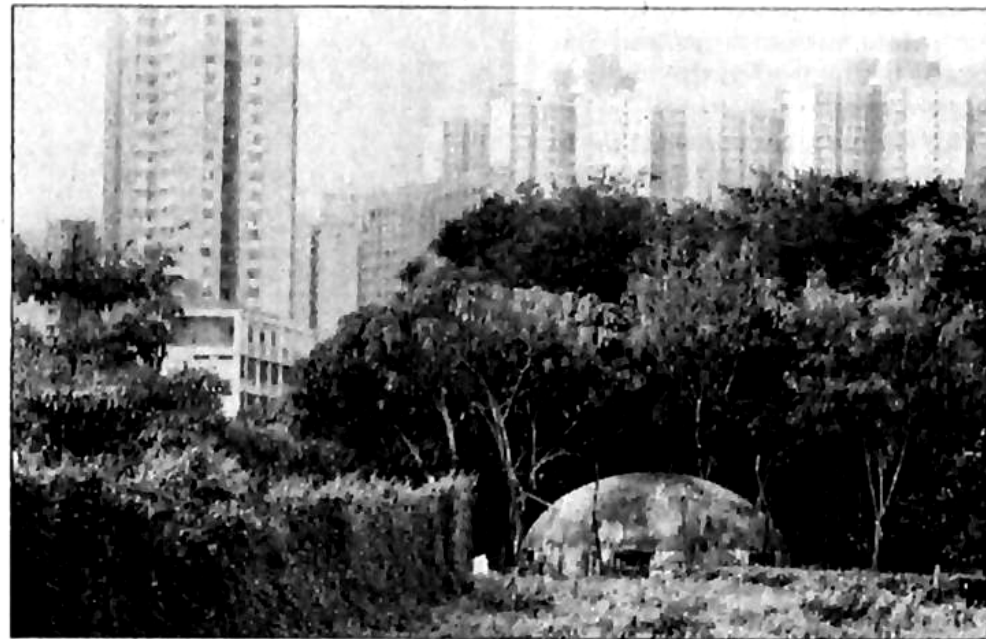
.....  
**Joyce Ng**

District councillors will confront heritage officials today when they vote on a motion opposing the downgrading of two historic structures in Diamond Hill that may be removed to make way for a large railway depot.

Lam Man-fai – who will table the motion at the Wong Tai Sin District Council when officials from the Commissioner for Heritage's Office pay a visit today – said many councillors were unhappy the three heritage sites in the former Tai Hom village had been left to decay, and two had been downgraded without a reason.

The Antiquities and Monuments Office has proposed that the grade-three Old Stone House – home of actor Qiao Hong in the 1950s and '60s and part of the village that was home to many directors and stars – be removed from the heritage list.

On the other side of the site, a second world war pillbox, or military bunker, faces having its status dimin-



three status, are all that is left of the village, which was taken over by squatters before being cleared in the late 1990s. Lam said the stone house had been damaged by intruding tree roots and become a breeding ground for mosquitoes. "These three items

was downgrading the buildings to make it easier for the MTR Corporation to clear the site to build the depot for the future Sha Tin-to-Central link.

Just two weeks ago, the Antiquities and Monuments Office said the depot's tracks would encroach on the

The MTR Corp plans to clear a 7.2-hectare site with a 17-track depot which will be partly underground for rail maintenance and storage. The depot will be a residential and commercial development. An MTR Corp spokeswoman said the three historic structures would be "reprovisioned" but declined to give details.

"After depot construction, the structures could be moved to somewhere else or returned to where they are," she said.

The company is preparing an environmental impact assessment for the railway and relocation of the structures.

Wallace Chang Ping-hung, a professor of architecture at Chinese University of Hong Kong, said the MTR Corp had not been able to explain to him why the depot had to be so large as to clear the whole site, given there were other depots in Kowloon and Sha Tin.

"It's always the money-and-development argument. Their plan amounts to raping the heritage," he said.

Taking the depot underground and making it smaller might

**Issues with Conserving Hong Kong's  
(Reinforced Concrete) War Architectural Heritage**  
保育香港的（鋼筋混凝土）戰爭建築文化遺產的問題



# Heritage Values of War Architectural Heritage

## ✗ Aesthetic Value 美學價值

War architecture is designed for war, not for aesthetics!

## ✗ Historic Value 歷史價值

Very often, nothing historic happened in sites of war architectural heritage!

## ✗ Social Value 社會價值

Social value is about collective attachment. It's not pretty, it's not historic and it's hidden from view – difficult for people to feel attached to it!

## ✗ Functional Value 社會價值

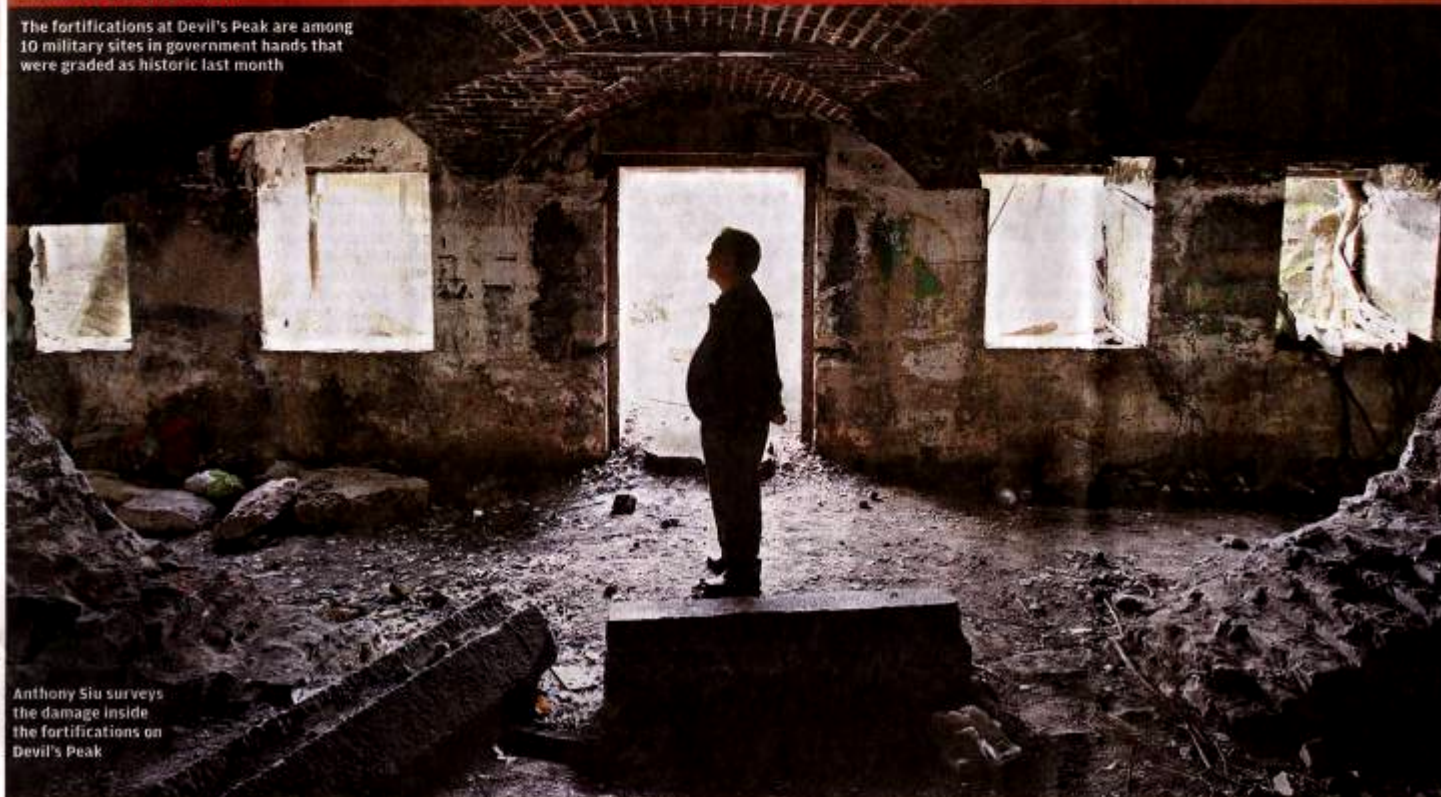
Nothing much to look at as a monument; limited options for adaptive reuse. Very often, people just want to get rid of it along with bad memory of war!

Graffiti, weeds and damage by visitors mar fortifications

# Officials leave historic military sites to decay

## Peak of destruction

The fortifications at Devil's Peak are among 10 military sites in government hands that were graded as historic last month



Anthony Siu surveys the damage inside the fortifications on Devil's Peak

State of disrepair



# Heritage Values of War Architectural Heritage

## Criteria for Feasibility of Adaptive Reuse

1. Size does matter
2. Has to be visible
3. Has to be accessible
4. A right use has to be found
5. Finally, what about the state of the reinforced concrete

# Conserving and Revitalizing Hong Kong's Architecture of War

## HK Museum of Coastal Defence

Open in 2000, it is an award-winning conservation project involving the adaptive reuse of the expansive Lei Yue Mun fortifications, including the Redoubt.





Former envoy sees new role for wartime structures in Lei Yue Mun

# Wine-cellar proposal for bunkers

**Vivienne Chow**

Five forgotten wartime bunkers hidden at Lei Yue Mun on Hong Kong Island have been identified, with some having the potential to become wine cellars.

Gregory De'eb, a former South African consul general to Hong Kong who now runs the Unesco Asia-Pacific Heritage Award-winning Crown Wine Cellars in Shouson Hill, identified the bunkers by investigating a series of old photographs.

The pictures were taken when Hong Kong was fighting the Japanese during the second world war.

Mr De'eb said that about eight years ago he received a series of photographs showing construction of the bunkers from a historian he worked with when converting the Central Ordnance Munitions Depot, known as Little Hong Kong during the war, into a wine cellar and clubhouse that became the site of the Crown Wine Cellars.

At that time, Mr De'eb was certain the sites featured in the photographs were not of Little Hong Kong.

"Fast-forward six years to 2007, and I suddenly had a renewed interest in where these bunkers were located because they were definitely Hong Kong. So I started asking around again," he said.

By comparing various historical photographs with those from the present day, Mr De'eb identified some common features between the pictures, including structures

and the Leisure and Cultural Services Department, which manages Lei Yue Mun Park and Holiday Village. He said the latter department told him such bunkers did not exist.

But the department, in answer to a question from the *South China Morning Post*, said the bunkers were not under the areas it managed, as they were outside the Lei Yue Mun country park and the Museum of Coastal Defence.

In March, Mr De'eb received a letter from the Commerce and Economic Development Bureau acknowledging the existence of the bunkers.

The Development Bureau said that up to now the government had discovered the five bunkers in Lei Yue Mun and 12 similar ones at Shouson Hill, where four have been leased to Crown Wine Cellars.

The *Post* located three of the five bunkers near the Island Eastern Corridor, whose entrances were numbered 34, 35 and 36, and were protected by newly installed steel gates and fences.

While the two other bunkers at Lei Yue Mun had their entrances buried, numbers 34 to 36 could be transformed into wine cellars, Mr De'eb said.

He has proposed turning the bunkers into wine cellars. He said he had been in close contact with the government in the hope that the site could be turned into a sustainable heritage site available to the public but at no cost to taxpayers.



Fenced-off bunkers near the Island Eastern Corridor date to the second world war when Hong Kong was fighting the Japanese. Photo: David Wong



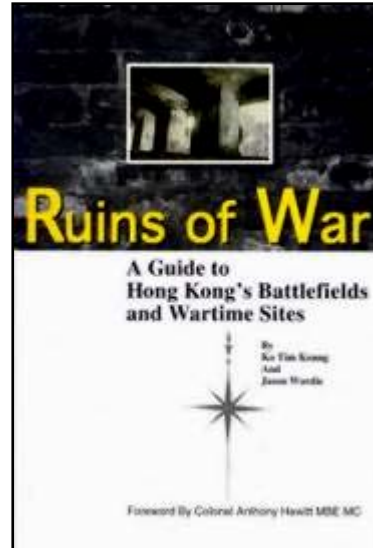
# Conservation of Historical Explosives Magazines at Admiralty, Hong Kong





# Pioneer Advocates for Conserving Hong Kong's War Architecture

## 提倡保育香港戰爭建築文化遺產的先驅者



Tim Ko (高添強) and Jason Wordie, and their book *Ruins of War*



Robert C. "Bob" Horsnell (何仕堯), and his research on the "MacIntosh Cathedral" (frontier observation post named after HK Commissioner of Police Duncan W. MacIntosh (1946-54) 「麥景陶大教堂」邊境前哨觀察站)

**THANK YOU!**



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