

# New Design in Old Buildings: Innovative Revitalisation of Heritage Buildings

## 舊建加新: 創意新設計，活化舊建築

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### CONSERVATION APPROACHES

#### **Preservation** 完全保護

Conserve everything, change nothing, same appearance as found  
Application: archaeological sites

#### **Restoration** 保育復修

Conserve existing, add missing parts, return to an earlier appearance  
Application: national monuments, such as the Forbidden City

#### **Adaptive Reuse** 改做再利用 / **Revitalization** 活化再用

Conserve selectively, allow changes for new use, appearance updated with new addition  
Application: heritage buildings that no longer serve the original use

#### **Reconstruction** 保育重建

Partially or completely replicate the old  
Application: Murray House in Stanley, many places in Mainland China!

## Should heritage buildings be revitalized as museums?

博物館是歷史建築的最佳的活化用途嗎？

### TECHNICAL REQUIREMENT: Display and Storage Space 展覽與存儲空間

Does the place have sufficient space not only for the display, but also for the storage of collections, in accordance with the requirements of the accreditation organization?

Space required:           40% of the building for public collection space (display)  
                                  20-30% for non-public collection space (storage and conservation)

Exhibition-storage ratio: 1 : 1 for large or national museums  
                                  2.7 : 1 for medium or general museums  
                                  4 : 1 for small or local museums

Source: Barry Lord, Gail Dexter Lord and Lindsay Martin (eds.) *Manual of Museum Planning*, 3rd ed. (Lanham, Maryland: AltaMira Press, 2012), section 7.1.)

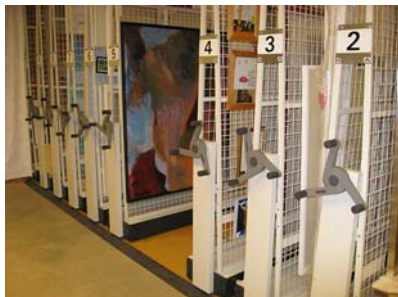


Image source: [www.bruynzeel.co.uk](http://www.bruynzeel.co.uk); [www.constructor-storage.com](http://www.constructor-storage.com)

### MANAGEMENT REQUIREMENT: Accreditation 認證

Will the place remain a self-styled "museum" or be able to become a accredited museum?

A museum, as an institute, has to meet the accreditation requirements of a national or an international museum accreditation organization, such as, Arts Council England, American Alliance of Museum, and the International Council of Museums (ICOM) 國際博物館協會, among others.



Image source: [www.athelstanmuseum.org.uk](http://www.athelstanmuseum.org.uk); [www.bris.ac.uk](http://www.bris.ac.uk); [learn.michenerartmuseum.org](http://learn.michenerartmuseum.org); [shellmuseum.org](http://shellmuseum.org)

### TECHNICAL REQUIREMENT: Professional Standards & Guidelines 專業準則與指引

To achieve accreditation, does the operation meet professional standards and guidelines for museums, such as those laid down by ICOM?

ICOM's standards and guidelines supply models to museum professionals in order to facilitate the implementation of their good practices in terms of objects acquisition, personnel, conservation of art objects and museum specialism.


- Running a Museum: a practical handbook (2004)
- The CIDOC Conceptual Reference Model (CRM, 2001)
- Interpreting Musical Instruments in Museum Collections: Guidelines (1998)
- Guidelines for Costume (1998)
- Handbook of Standards Documenting African Collections (1996)
- International Core Data Standards for Ethnology/Ethnography (1996)
- International Guidelines for Museum Object Information: the CIDOC Information Categories (1995) 
- Recommendations for the Application of Accession Numbers (1995)
- Registration Step by Step: When an Object Enters the Museum (CIDOC Fact Sheet 1, 1993) 
- Labelling and Marking Objects (CIDOC Fact Sheet 2, 1993) 
- Guidelines for Disaster Preparedness in Museums (1993) 
- CIMENT: Uniform Procedures for Data Element Description in CIMCIM Database Systems (1991)
- Recommendations for Regulating the Access to Musical Instruments in Public Collections (1985)
- ICOM Guidelines for Loans (1974) 

Image source: [icom.museum](http://icom.museum)

**MANAGEMENT REQUIREMENT: Collection and Resources 藏品與資源**

Is it a museum with its own collection, or an exhibition venue displaying on-loan items?

A museum has to have its own **collection** (otherwise, it's an exhibition venue 展覽場地) as well as the **resources** to hire professional staff to carry out research and publication, as well curatorial, conservation and protection of the collection.



Image source: archaeologicalmuseum.jhu.edu

**MANAGEMENT REQUIREMENT: Environmental Control & Security 濕溫控制與保安系統**

Is the place able to meet the international museum standards for relative humidity and temperature control as well as security?

Collection Type: General museums, art galleries, libraries, and archives (all reading and retrieval rooms, rooms for storage of chemically stable collections, especially if mechanically medium to high vulnerability)

RH and temperature set points: historical annual average for permanent collections or 50% RH with the temperature between 15 and 25°C.

Source: David Grattan and Stefan Michalski, "Environmental Guidelines for Museum," article on the website of the Canadian Conservation Institute (2 March 2012) at: [www.cci-icc.gc.ca/caringfor-prendresoindes/articles/enviro/index-eng.aspx#ft1aa](http://www.cci-icc.gc.ca/caringfor-prendresoindes/articles/enviro/index-eng.aspx#ft1aa)



Image source: www.genetec.com, www.cci-icc.gc.ca

**FINANCIAL REQUIREMENT: Funding Sources 資金來源**

Does the place have stable funding sources to sustain the museum operation and development?

Unlike the model found in most of the world, where museums are largely supported by the national government, American museums keep their operations going by cobbling together a mosaic of funding sources, from government sources, from the private sector and, increasingly, from earned income [(mostly through renting out event and shop spaces) and investments].

Source: Ford W. Bell, "How are Museums Supported in the U.S.?", article on the website of the U.S. Department of State, Bureau of International Information Programs (published March 2012) at: [http://photos.state.gov/libraries/amgov/133183/english/P\\_You\\_Asked\\_How\\_Are\\_Museums\\_Supported\\_Financially.pdf](http://photos.state.gov/libraries/amgov/133183/english/P_You_Asked_How_Are_Museums_Supported_Financially.pdf)

Average Mix of Funding Sources for U.S. Museums (2009)



Government support (all levels)	24.4%	Private (charitable) giving	36.5%	Earned income	27.6%	Investment income	11.5%
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Image source: photos.state.gov

**"The quickest way to bankruptcy is to set up a museum!"**

Dr. Joseph Ting, former Chief Curator of the Hong Kong Museum of History

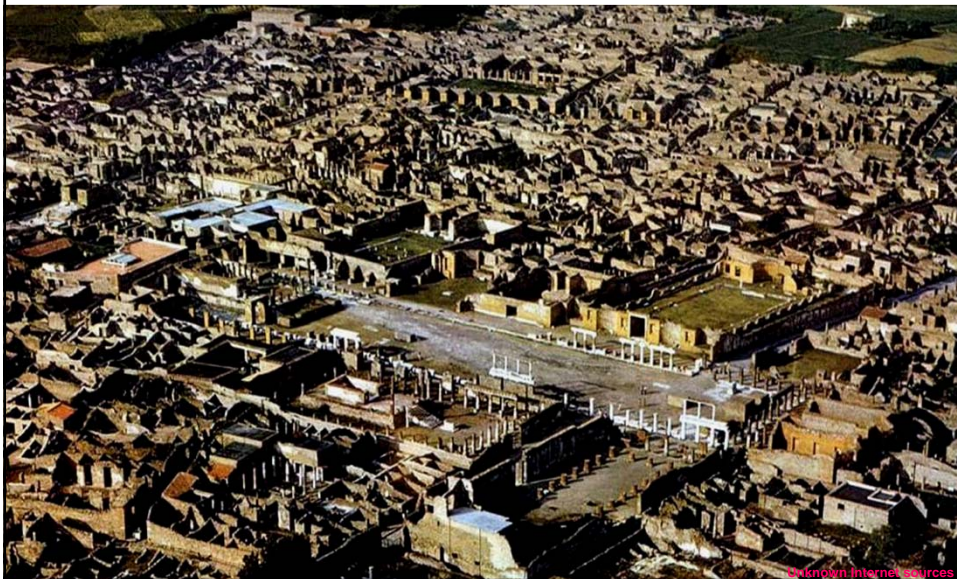
「想快啲破產，最好就係搞博物館！」

前香港歷史博物館總館長丁新豹博士



The **debate** - conservation = preserve everything; change nothing?  
**爭議** - 保育 = 原汁原味；一個不少?

suitable for national monuments and archeological sites 適用於國寶、考古遺址





The **premise** - conservation ≠ preservation  
**前提** - 保育並不等於一成不變

The **premise** - new design is necessary for reuse of old buildings

**前提** - 再用舊建 必需有新

The **question** - how to integrate new design in old buildings?

**問題** - 如何舊建加新？



pseudo-conservation: save the façade  
偽保育：保立面



pseudo-conservation: imitate the past  
偽保育：仿古





**Central Pier, Hong Kong, 2006** (Civil Engineering and Development Department, Government engineers)



**Heritage 1881, Hong Kong, 2009** (Cheung Kong Holdings, Hong Kong developer)



pseudo-conservation: save the façade and imitate the past  
偽保育：保立面、仿古

sustainable conservation: innovate for the future!  
可持續保育：創新造未來！

**English Heritage's  
Conservation Principles, Policies and Guidance  
for the Sustainable Management of the Historic Environment (2008)**

139 The recognition of the public interest in heritage values is not in conflict with innovation, which can help to create the **heritage of the future**.

**英國文化遺產機構  
在2008年發表的「文物保護準則，政策與指引」**

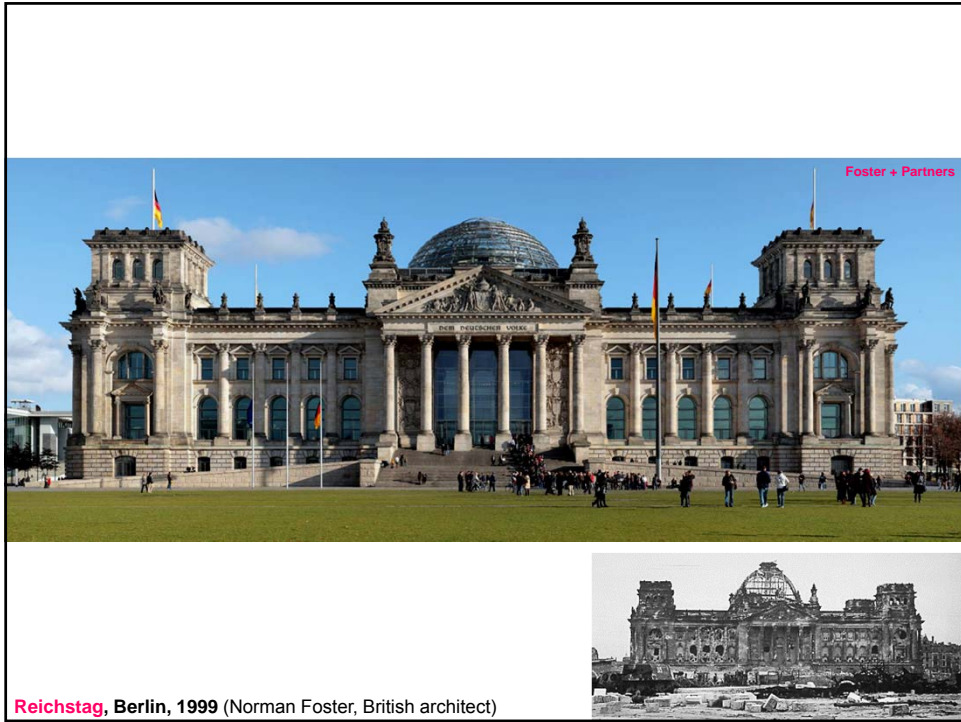
第 139 段 公眾對保育的訴求，與創新的設計，兩者並無矛盾；因為要有創新的建築設計，才會有未來的建築文物。



The Louvre Pyramid, Paris, 1989 (I M Pei, American architect)



The Louvre Pyramid, Paris, 1989 (I M Pei, American architect)





# a provocation

International Examples of Super Innovative Adaptive Reuse Projects

# 我挑釁你

超創意活化再用的國際例子

# architecture must burn!



# 讓建築燃燒吧！

我們厭倦了建築仿古的面具，我們要更具創意的設計。  
若要冷，就要如冰、若要熱，就要如火。讓建築燃燒吧！

一九八零年，奧地利「藍天組」建築事務所的兩位憤青建築師，  
為針對後現代仿古建築所發表的宣言





Coop Himmelblau

**Energy Roof** (design), Perugia, 2010 (Coop Himmelblau, Austrian architects)



Lee Ho Yin

**Clark Quay**, Singapore, 2006 (Will Alsop, British architect)





Clark Quay, Singapore, 2006 (Will Alsop, British architect)

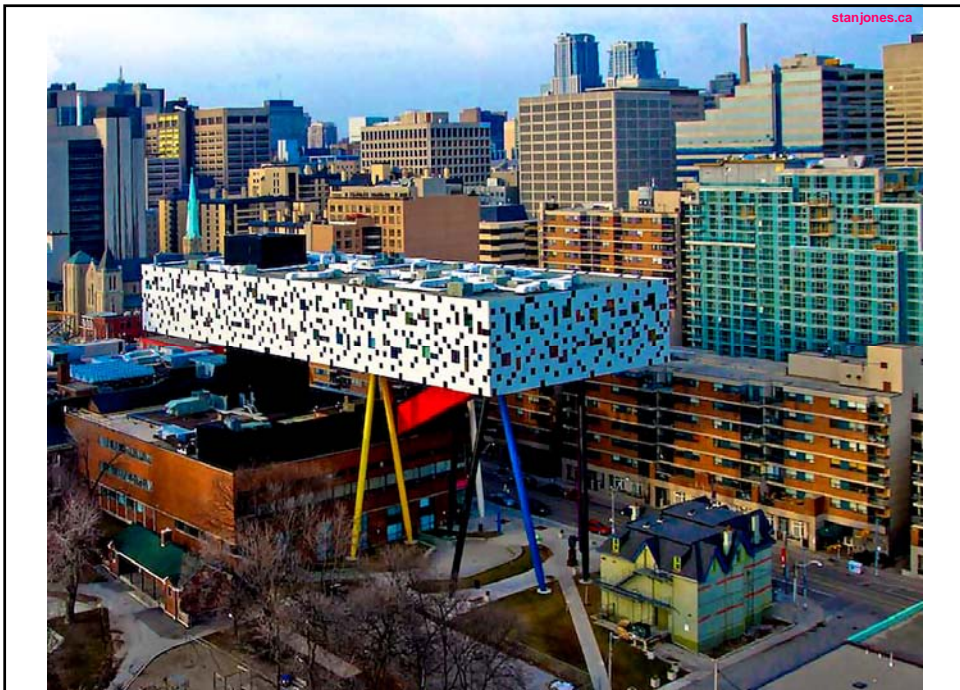


Clark Quay, Singapore, 2006 (Will Alsop, British architect)





Clark Quay, Singapore, 2006 (Will Alsop, British architect)



Ontario College of Art & Design, Toronto, 2004 (Will Alsop, British architect)





**The architectue of Daniel Libeskind** (American architect)



**Royal Ontario Museum Extension, Toronto, 2007** (Daniel Libeskind, American architect)



[www.dailycommercialnews.com](http://www.dailycommercialnews.com)



**Royal Ontario Museum Extension, Toronto, 2007** (Daniel Libeskind, American architect)

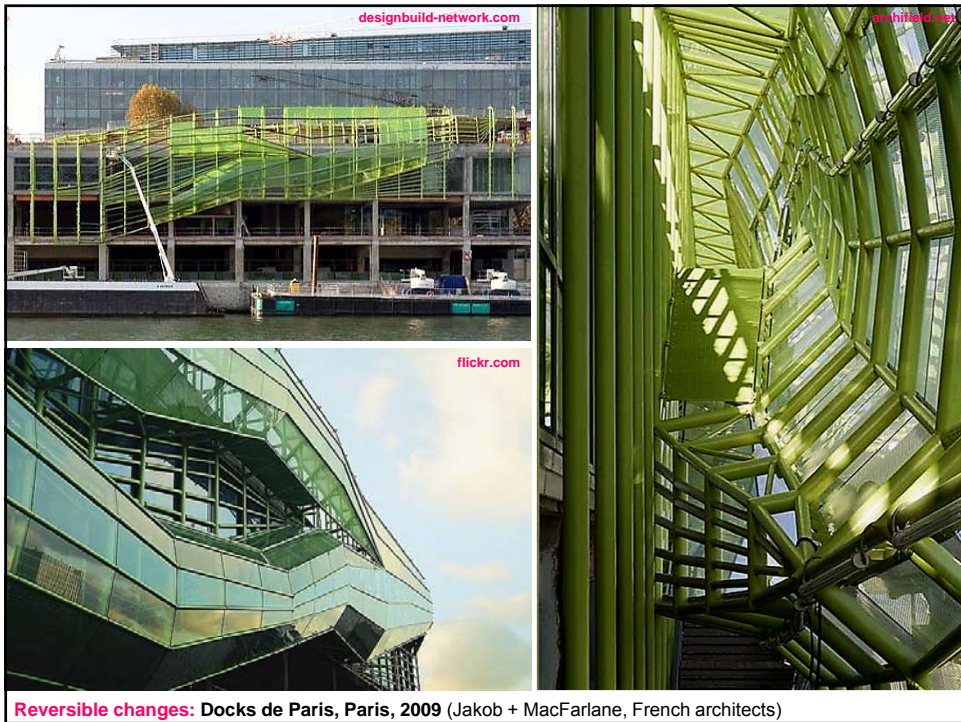
[tv-facts.net](http://tv-facts.net); [fringe.wikia.com](http://fringe.wikia.com)









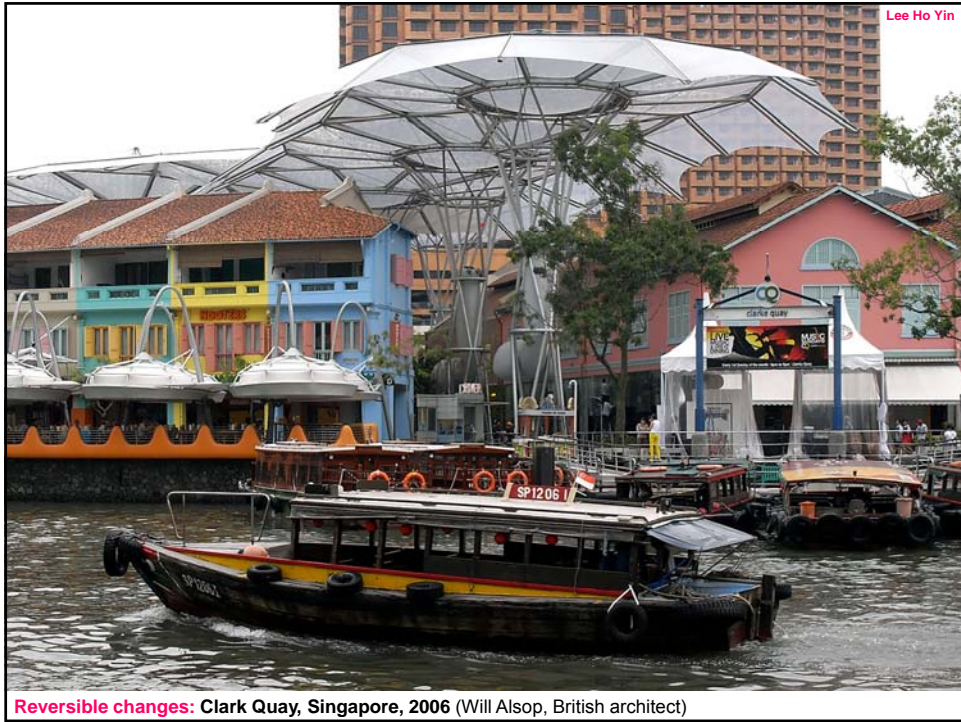


Reversible and non-reversible changes  
可還原與非可還原的改建



Reversible changes: Ontario College of Art & Design, Toronto, 2004 (Will Alsop, British architect)





Reversible changes: Clark Quay, Singapore, 2006 (Will Alsop, British architect)

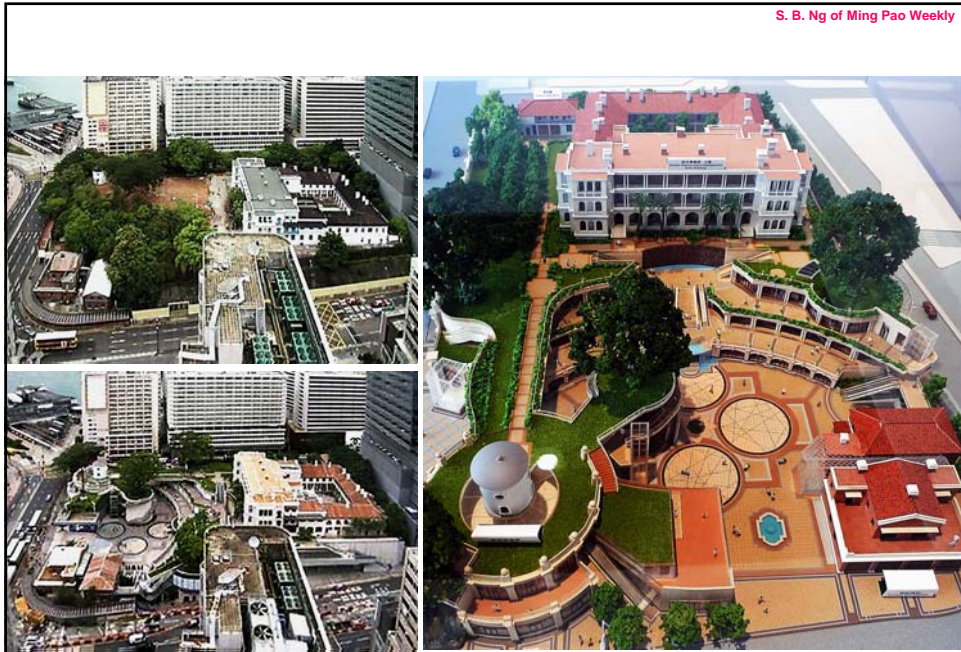


Reversible changes: Royal Ontario Museum Extension, Toronto, 2007 (Daniel Libeskind, American architect)





Reversible changes: Military History Museum, Dresden, 2011 (Daniel Libeskind, American architect)



S. B. Ng of Ming Pao Weekly

Non-reversible changes: Heritage 1881, Hong Kong, 2009 (Cheung Kong Holdings, Hong Kong developer)

## UK English Heritage's Constructive Conservation (2008, 2013)

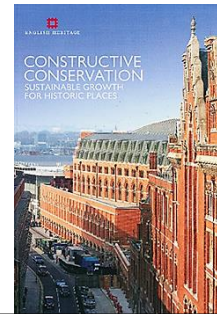
### **Constructive Conservation In Practice (2008)**

"The aim is to recognize and reinforce the historic significance of places, while **accommodating the changes necessary to ensure their continued use and enjoyment.**"



### **Constructive Conservation: Sustainable Growth for Historic Places (2013)**

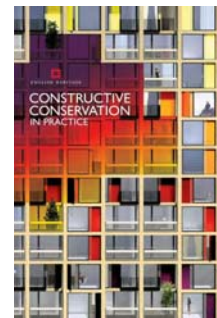
"... these case studies emphasise the balance between understanding significance and **accommodating necessary alterations to ensure the continued use and enjoyment** of historic buildings, monuments and landscapes."



## UK Constructive Conservation vs HK Revitalisation Scheme

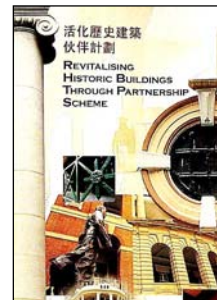
### **Constructive Conservation In Practice (2008)**

"The aim is to recognize and reinforce the historic significance of places, while **accommodating the changes necessary to ensure their continued use and enjoyment.**"



### **Revitalising Historic Buildings through Partnership Scheme (2008)**

"Through **good adaptive reuse** of our historic buildings, we aim to give these buildings **a new lease of life for the enjoyment of the public.**"



# The HKSAR Chief Executive's 2007 Policy Address



## Heritage Conservation 文物保育 (paragraphs 49-56, the longest ever!)

51. In my view, **revitalisation**, rather than preservation alone, should be pursued to maximise the economic and social benefits of historic buildings. This is in line with the **concept of sustainable conservation**.

51. 我認為歷史建築物不應單單保存，而是應該**活化**，發揮它們的經濟及社會效益，這樣才符合**可持續保育概念**。

Image: www.gov.cn / Xinhua

# Constructive Conservation / Revitalisation / Adaptive Reuse

South China Morning Post 南華早報  
**PROPERTY**  
 THU Jul 10, 2014 Updated 9:44pm  
 News Business Comment Lifestyle Sport Property  
 Home - Property - Hong Kong & China Trending Xu Jieping Edward Snowden

## Preserving the past in new buildings is back in fashion

Adaptive reuse is taking off, allowing developers to cut down on waste, retain a building's character and even save money on construction costs

Peta Tomlinson  
peta.tomlinson@scmp.com PUBLISHED: Wednesday, 09 July, 2014, 5:02am  
UPDATED: Wednesday, 09 July, 2014, 8:12am



Design firm M Moser Associates repurposed Hubao International's outdated Shanghai factory into a shiny new global headquarters. Photo: SCMP Pictures

Giving new life to old buildings is one thing, but if it is not useful in the end, it will not be sustainable - and even buildings need to pay their way.

Repurposing, on the other hand, may achieve that. Using architectural innovation to make an existing structure viable again seems preferable on many levels: it retains some linkage to the past, saves construction waste and, sometimes, can even be more cost-effective than starting from scratch. Architects call this "adaptive reuse". And if it has not yet come to a neighbourhood near you, chances are it is not far away.

Repurposing of old buildings has been practised throughout history, says Teresa Jan, associate architect at global design firm M Moser Associates.

**SHARE**  
 1 Like 1 Share  
 3 Tweet 0 reddit  
 2 Share 0-1  
 0 Comment



## REPURPOSING BUILDINGS LAYS FOUNDATION FOR PRESERVATION

**Adaptive reuse** is taking off, allowing developers to cut down on waste, retain a building's character and even save money on construction costs

it unfolds with our  
**US PACKAGE**

SCMP  
 South China Morning Post

Hubao International's old Shanghai factory becomes the new M Moser Associates headquarters



## Adaptive Reuse / Revitalisation / Constructive Conservation

We **advocate**

- **ADAPTIVE REUSE**: integrating the old with innovative new design to make a building of the past relevant to the needs of the present, and thereby continue it to the future.

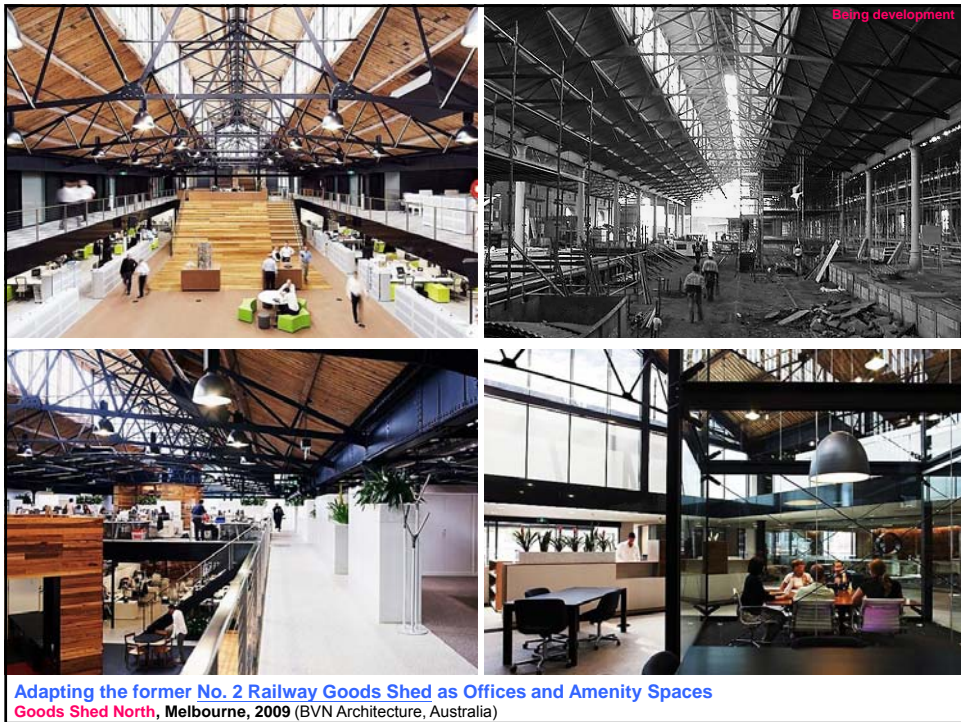
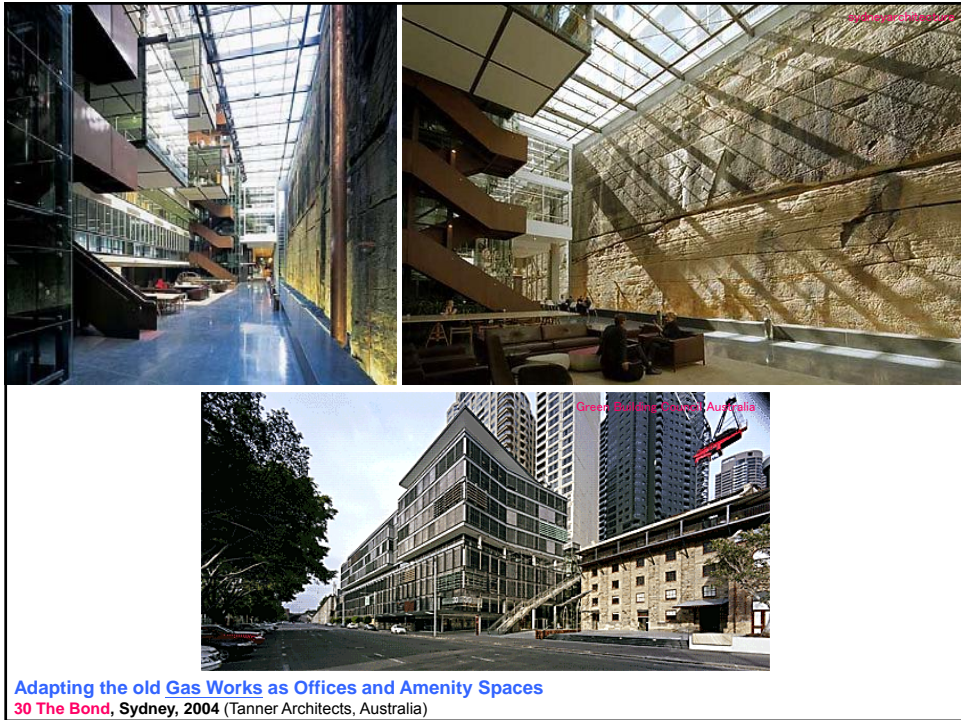
我們 **提倡**

- **改做再利用**：以新舊合一，使到過去的建築能迎合現今所需，從而延續到未來。

Overseas examples

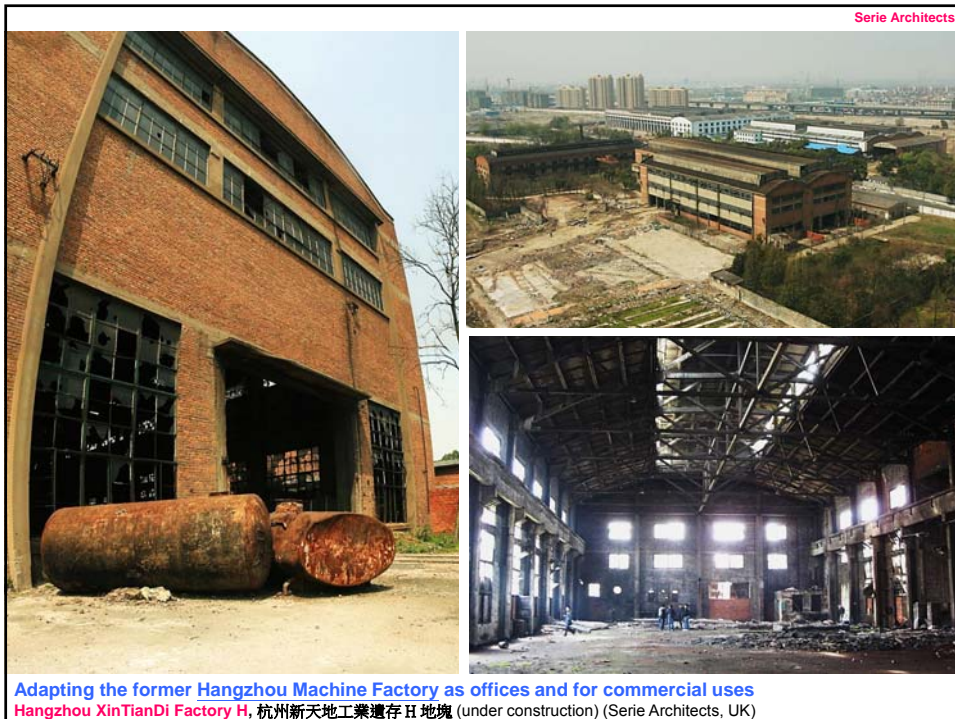
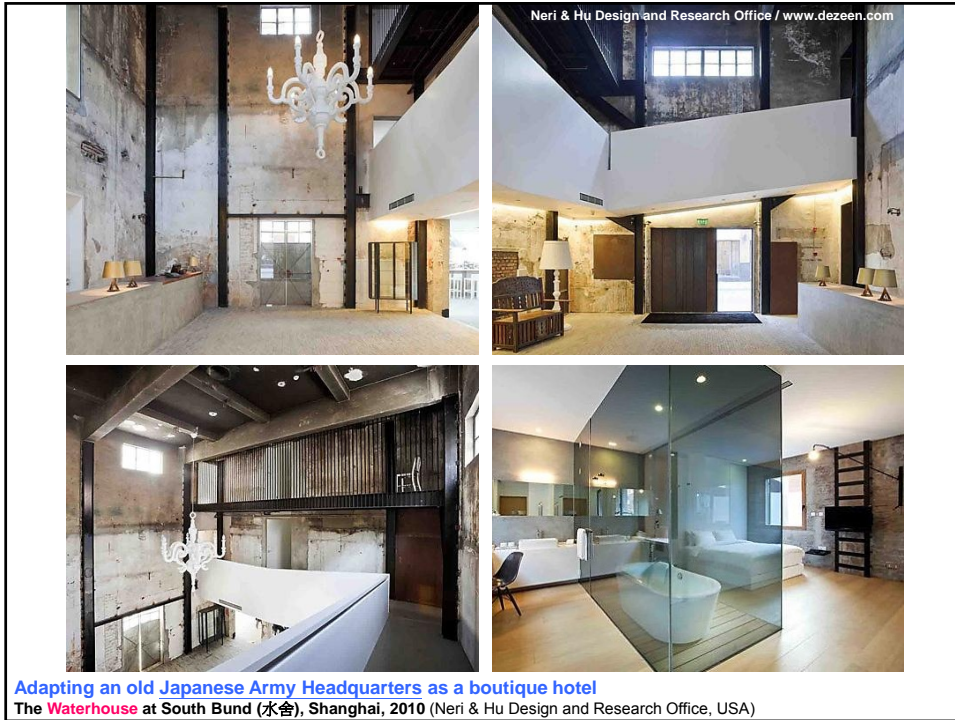
外地例子













hz.house.sina.com.cn; Serie Architects

## 150万方·超级城市中心区

HANG ZHOU XINTIANDI

杭州新天地是新天地集团斥资百亿打造的中国第一个以工业遗存为核心的城市综合体，杭州市十大重点工程之一。

项目位于武林广场东北，距西湖仅为6公里，坐落秋石快速路、德胜快速路、上塘中河高架、石祥路四大快速路构成的“井”字形交通核心区，杭州地铁3、4号线交汇处，是杭州罕见的双地铁上盖物业。

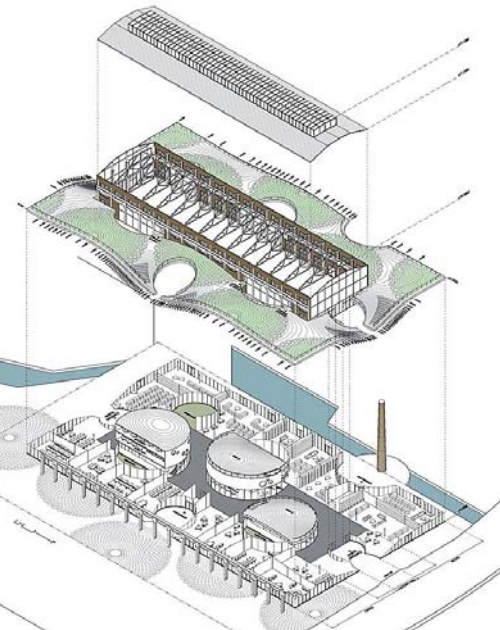
新天地规划用地800余亩，总建筑面积150万方，力邀3位世界建筑大师、8大国际顶尖机构联袂规划设计，保留了原杭州里机厂风格独特的工业建筑，以前瞻性的规划设计，赋予旗舰级商业商业中心、复合型国际资本群、工业遗存街区、亚洲第一大IMAX影院、新天地世嘉新座等丰富业态，为杭州开创新的活力中心。


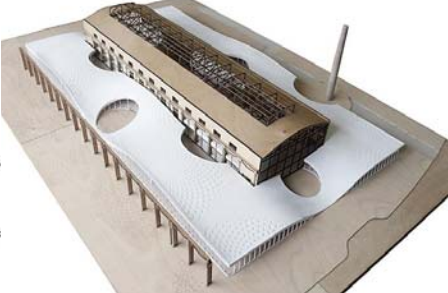




**Adapting the former Hangzhou Machine Factory as offices and for commercial uses**  
**Hangzhou XinTianDi Factory H, 杭州新天地工业遗存H地块** (under construction) (Serie Architects, UK)

Serie Architects



**Adapting the former Hangzhou Machine Factory as offices and for commercial uses**  
**Hangzhou XinTianDi Factory H, 杭州新天地工业遗存H地块** (under construction) (Serie Architects, UK)

vimeo.com/15801909



Video at: <http://vimeo.com/15801909>

Adapting the former Hangzhou Machine Factory as offices and for commercial uses  
Hangzhou XinTianDi Factory H, 杭州新天地工業遺存H地塊 (under construction) (Serie Architects, UK)

Local examples  
本地例子

**One of the first conservation projects that include innovative new design**

The two Former Explosives Magazines of the Old Victoria Barracks (前域多利軍營炸藥庫 / 舊域多利軍營軍火庫) have been adapted as the new Asia Society Hong Kong Centre's art gallery (Magazine A) and multipurpose theatre (Magazine B), they were opened in 2012.



tumblr.com; tumblr.com; Lee Ho Yin; Ming Pao



Lee Ho Yin

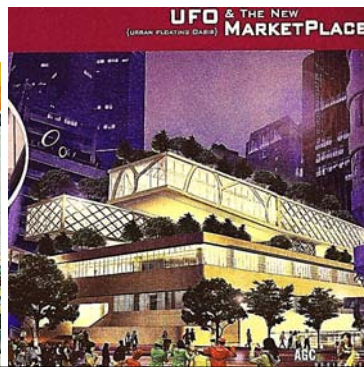
Adapting two rows of shophouses as offices, studios & exhibition venues for comic & animation artists  
Comix Home Base, Wan Chai, Hong Kong, 2013 (Urban Renewal Authority, HK)





**Innovative design in revitalization – HK is now at a critical juncture**  
有創意,具創新的活化再用建築文物: 香港正處於關鍵時刻

保育回憶, 活化中區 Inspired by our Heritage. 2014 Concept Planning & Key Architecture



**Innovative design in revitalization – HK is now at a critical juncture**  
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"Urban Floating Oasis (UFO)" by AGC Design Ltd. 由創智建築師有限公司設計的「漂浮綠洲」



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YouTube at [www.youtube.com/watch?v=sxVSw4K-es8](http://www.youtube.com/watch?v=sxVSw4K-es8)

## 漂浮綠洲新市集 UFO (Urban Floating Oasis) and the New Marketplace

創智建築師有限公司  
AGC Design Ltd

### SUMMARY 總結

We **advocate**

- NO! to preserving old buildings as museum objects
- YES! to revitalizing old buildings with innovative design to serve the communities through needed new uses

我們 **提倡**

- 說不：僵化舊建成為古董
- 說得：活化舊建，創新設計，實際用途，有利社區



Thank You

謝謝