

A Duet between Culture Heritage and Digital Technology in Taiwan

Dr. James Quo-Ping Lin

Chief, Division of Education, Exhibition, and Information Services,
National Palace Museum, Taipei, Taiwan
Vice-President, Chinese Association of Museums
Vice-President, MCN-Taiwan
AAM Museaward Jury Chair



Presentation Outline

- **Museum Brief Overview**
 - History & Collection
- **National Projects Introducing Innovative Technologies**
- **A Quick Look-back**
 - What Has been Done
- **Latest Update**
 - Focus on Interactivity
- **Showcase**
 - The Multimedia Gallery of Paintings & Calligraphy
- **Museum Technology Foresight: Horizon Report Museum Ed.**
- **Conclusion, Prospect, and Lesson Learned**



Presentation Outline

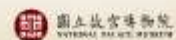
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Museum Brief Overview

Museum History

- First established in **1925** in the Forbidden City, Beijing, China.
- Started evacuating its collections to the south and southwest during the Sino-Japanese War in 1922.
- 22% of its large collection of cultural artifacts was eventually relocated to Taipei, Taiwan.
- Re-opened in **Waishuangxi, Taipei**, merged with the Central Museum (founded in 1933 at Nanking) and renamed the National Palace Museum.





1965



1971



1984



The Museum Today

Museum Brief Overview Collections

- Mainly deals with arts and artifacts of ancient Chinese fine arts, including **paintings, calligraphic works, antiquities, rare books** and imperial Ch'ing Court Archives.
- **682,061** objects (Dec, 2010)



文物總量請參見：全球資訊網 → 認識故宮 → 文物與帳房
<http://www.npm.gov.tw/zh-tw/about/objects.htm>



清室王府舊家具陳列室

藏品分類別、數量

本院收藏的文物，不僅數量龐大，而且品類繁雜，可分為銅器、瓷器、玉器、漆器、織繡、雕刻、文具、印拓、錢幣、鐘表、法帖、法帖、紙品、善本書籍、清宮檔案文獻、滿蒙藏文文獻，以及包括法器、服飾、典章書畫在內的特殊分類別，累計至今總量最高：

銅器—6,063件	繪畫—6,068件
瓷器—25,525件	法書—3,522件
玉器—12,127件	法帖—490件
漆器—723件	絲織—309件
織繡—2,520件	紙器—1,808件
雕刻—859件	善本書籍—211,900冊
文具—2,379件	清宮檔案文獻—386,729冊件
錢幣—6,953件	滿蒙藏文文獻—11,501件
鐘表—12,462件	拓片—895件
雜品—1,485件	

以上總計693,597件冊。是到—0 0年（2011）十二月截止的典藏量。

回頁首

國立故宮博物院
NATIONAL PALACE MUSEUM

國立故宮博物院 NPM Online - 典藏總覽

A Statistical Tabulation of Numbers and Types in the Collection

The objects in the Museum's collection are great in both number and variety. They can be further divided into:

Bronzes: 6,063	Paintings: 6,068
Porcelains: 25,525	Calligraphic works: 3,522
Jades: 12,127	Calligraphic model books: 490
Lacquer wares: 723	Tapestries and embroideries: 309
Enamel wares: 2,520	Paper: 1,808
Ceramics: 859	Rare books: 211,900
Stake implements: 2,379	Qing archival documents: 386,729
Coin: 6,953	Documents in Manchu, Mongolian, and Tibetan: 11,501
Miscellaneous objects: 12,462	Rubbings: 895
Textiles: 1,485	

The category of miscellaneous objects includes objects such as religious implements, costumes and accessories, and quilted jackets. Thus, as of December 2011, the entire collection is composed of 693,597 objects.

2/3

● Inventories of the Collection

The collection of the National Palace Museum had experienced frequent movements prior to its re-education in Taipei, during the period it had also been subjected to several inventory checks. The earliest inventory count was taken by the Committee for the Disposition of Qing's Imperial Possessions after Emperor Pao (Qing's last emperor) was asked to

100% 11:53:29 2012/6/2

國立故宮博物院
NATIONAL PALACE MUSEUM

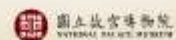
Presentation Outline

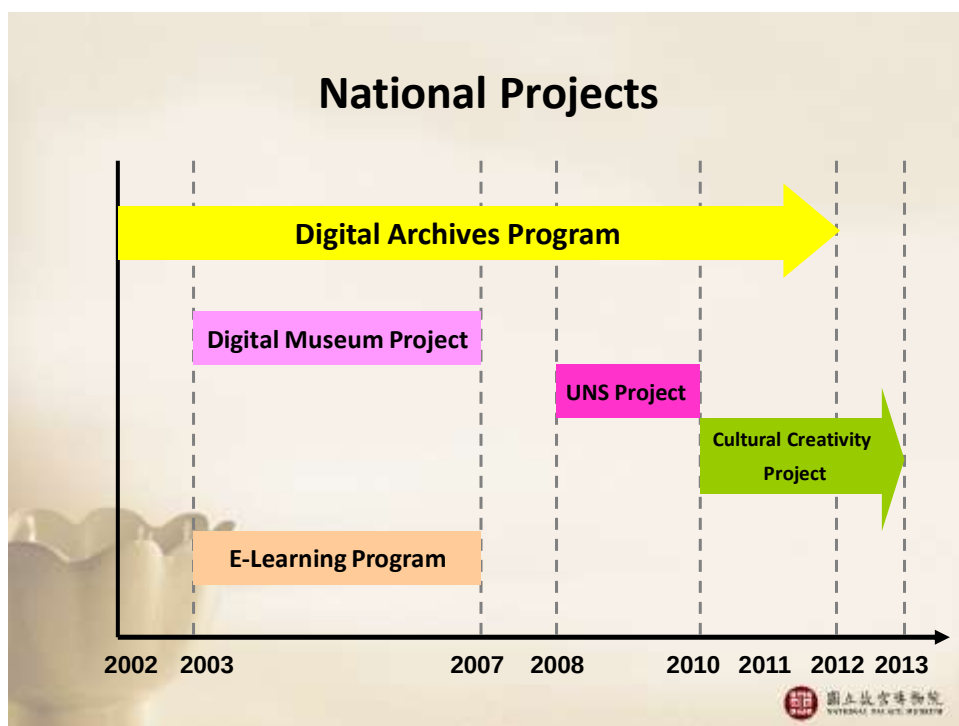
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Creation of Knowledge Assets through Digitization Projects

- Facing the trend of the ever changing role of museums
 - Collecting, conservation, education, entertainment, merchandizing...
- Since 2001, the NPM has launched a series of IT related projects which aim to:
 - ✓ Digitize the whole collection.
 - ✓ Transform digital raw material into knowledge assets.
 - ✓ Expand the results of digitization projects into diverse museum functions: registration, conservation, research, exhibition, education, publication, merchandizing.
- Some of these projects are still running.





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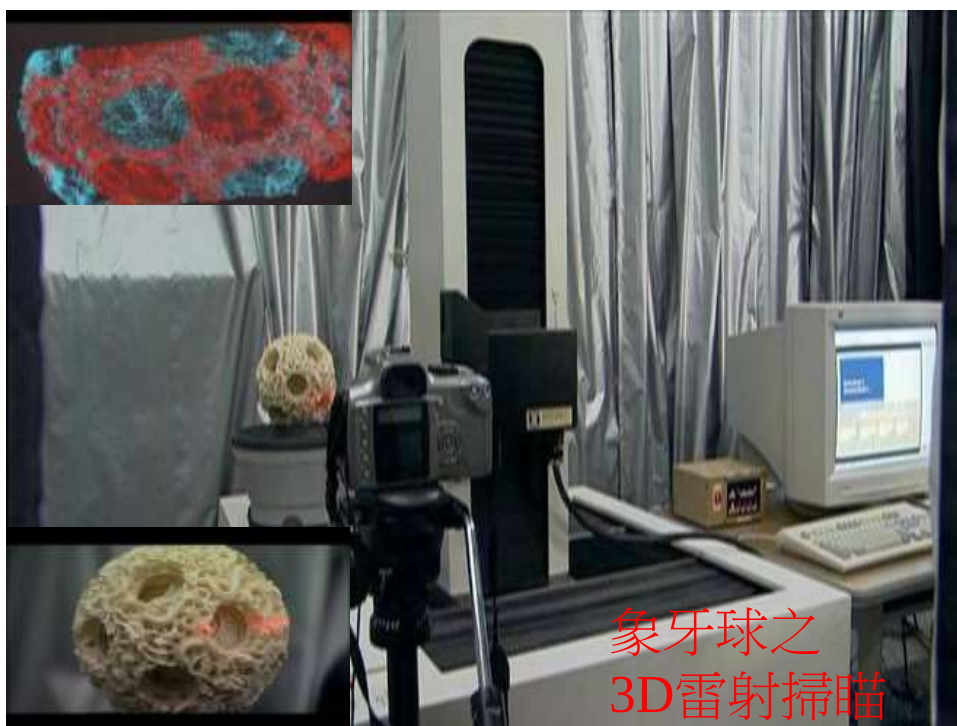
The Digital Archives Project

Main tasks

- Digitizing Artifacts
- Retaining and Managing
 - Constructing databases of digital images and metadata
- Providing materials for value-added applications and research

文物數位化流程





象牙球之
3D雷射掃描

故宮文物典藏系統

器物處、書畫處、圖書文獻處之Metadata系統，已開放查詢

故宮器物典藏資料檢索



清代宮中檔奏摺與軍機處檔摺件資料庫

故宮書畫典藏資料系統



故宮善本古籍資料庫




數位典藏成果產出(一)

器物典藏資料檢索系統-1

- 系統首頁：
<http://antiquities.npm.gov.tw/textdb2/NPMv1/sindex.php>



- 檢索功能：提供關鍵字查詢、品名、時代、類別、功能、典藏號(文物統一編號)等查詢功能。



國立故宮博物院
NATIONAL PALACE MUSEUM

數位典藏成果產出(一)

器物典藏資料檢索系統-2

- 檢索結果列表：顯示品名、尺寸、類別及文物圖例。

故宮器物典藏資料檢索				
檢索結果		檢索條件: p000=00, c001g=00 系統管理-查詢 全部資料共 15156 筆 - 共檢索到 1007 筆符合檢索條件 每頁 10 筆資料 - 目前在第 1 頁		
品名	尺寸	類別	圖例	
1. 周代銅匚(文鼎)	尊高30.3公分 口徑27.2公分 立耳高2.5公分 流高2.0公分 流口寬1.0公分	銅器 - 金屬器		
2. 周代銅匚(文鼎)	尊高30.3公分 口徑27.2公分 立耳高2.5公分	銅器 - 金屬器		
3. 周代銅匚(文鼎)	尊高30.3公分 口徑27.2公分 立耳高2.5公分	銅器 - 金屬器		
4. 周代銅匚(文鼎)	尊高30.3公分 口徑27.2公分 立耳高2.5公分	銅器 - 金屬器		
5. 周代銅匚(文鼎)	尊高30.3公分 口徑27.2公分 立耳高2.5公分	銅器 - 金屬器		

數位典藏成果產出(一)

器物典藏資料檢索系統-3

- 文物基本資料頁面：提供品名、典藏號(文物統一編號)、質材、功能、尺寸、時代、說明及文物數位攝影檔。並提供圖片局部放大功能



數位典藏成果產出(二)

書畫典藏資料檢索系統-1

- 系統首頁：http://painting.npm.gov.tw/npm_public/index.htm

- 檢索功能：提供一般檢索與進階檢索。
一般檢索可用書畫名稱或文物編號查詢，
進階檢索則可加入精確、模糊及AND或OR條件。



Database of Painting and Calligraphy

- 檢索列表頁面：顯示文物統一編號、書畫品名、作者、集叢名稱及圖例

文物統一編號	書畫品名	作者	集叢名稱	圖例
故宮藏書	唐高祖李淵御製聖教序	李淵	唐高祖李淵御製聖教序	
故宮藏書	唐高祖李淵御製聖教序	李淵	唐高祖李淵御製聖教序	
故宮藏書	唐高祖李淵御製聖教序	李淵	唐高祖李淵御製聖教序	
故宮藏書	唐高祖李淵御製聖教序	李淵	唐高祖李淵御製聖教序	
故宮藏書	唐高祖李淵御製聖教序	李淵	唐高祖李淵御製聖教序	
故宮藏書	唐高祖李淵御製聖教序	李淵	唐高祖李淵御製聖教序	
故宮藏書	唐高祖李淵御製聖教序	李淵	唐高祖李淵御製聖教序	
故宮藏書	唐高祖李淵御製聖教序	李淵	唐高祖李淵御製聖教序	
故宮藏書	唐高祖李淵御製聖教序	李淵	唐高祖李淵御製聖教序	

The Collection Management System

(Internal Use Only)

- 文物基本資料頁面：提供瀏覽文物資料及相關影像檔，並有高解析度圖檔瀏覽功能，提供研究人員可以更詳細觀賞文物細部圖像。





數位典藏成果產出(二)

圖書文獻處資料庫

- 圖書文獻處資料庫
 - 清代宮中檔奏摺及軍機處檔摺件目錄索引
 - 清代宮中檔奏摺及軍機處檔摺件全文影像資料庫(付費使用)
 - 清代文獻檔冊目錄資料庫
 - 大清國史人物列傳及史記傳包傳稿目錄索引
 - 大清國史人物列傳及史記傳包傳稿全文影像資料庫
 - 善本古籍目錄索引
 - 善本古籍全文影像資料庫
 - 家族譜牒文獻資料庫
 - 故宮博物院藏佛經附圖索引
 - 海外遺珠—非院藏文物圖片查詢
 - 清代檔案人名權威資料查詢
 - 同人輯清史書目
 - 清宮奏摺檔台灣史料檔
 - 一史館藏清代滿漢文硃批奏摺彙編目錄索引
 - 一史館藏活計檔作名索引

13 Digital Archives Databases Constructed

- Antiquities Database (器物典藏資料檢索)
- Paintings and Calligraphy System (書畫典藏資料系統)
- Rare Books Database (善本古籍資料庫)
- Database of Ch'ing Palace Memorials and Archives of the Grand Council (paid) (清代宮中檔奏摺及軍機處檔摺件資料庫)
- Ch'ing Dynasty Biographies and Academia Historical Biographical Packs and Drafts Index Search Database (清代史館檔傳包傳稿目錄索引資料庫)
- The Ming-Ch'ing Biographical database (清代檔案人名權威資料查詢)
- Database of Genealogical Document (家族譜牒文獻資料庫)
- Index to Ch'ing Archival Volumes (清代文獻檔冊目錄資料庫)
- Bronze Patterns of Early Qin Dynasty Search System (先秦銅器紋飾資料檢索系統)
- Index of Qing Palace Memorials Regarding Taiwanese Historical Documents (清宮奏摺檔臺灣史料目錄)
- Index of Files in China First Historical Archives (一史館藏活計檔作名索引)
- Editorial Contents of Tsou-Che with Emperors' Comments in both Manchu and Chinese Collected at China First Historical Archives (一史館藏清代滿漢文硃批奏摺彙編目錄)
- Fellow Curators' Collections on Historical Books in Qing Dynasty (同人輯清史書目)

數位典藏成果產出(三)

清代宮中檔奏摺及軍機處檔摺件資料庫-3

- 全文影像檔 (需付費使用)



2005/10/11

數位典藏成果產出(三)

善本古籍資料庫-1

- 系統首頁：<http://npmhost.npm.gov.tw/tts/npmmeta/RB/RB.html>



數位典藏成果產出(三)

善本古籍資料庫-4

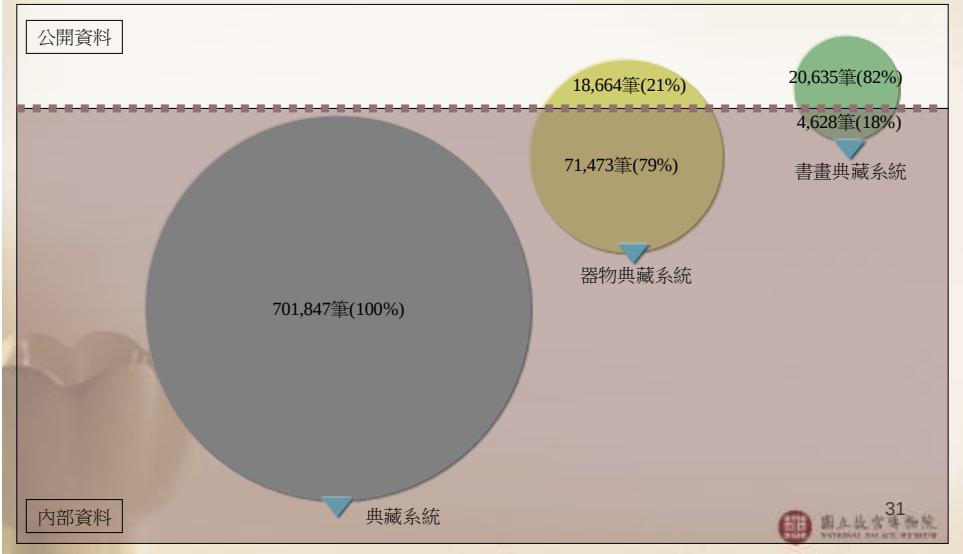
書影（免費瀏覽）



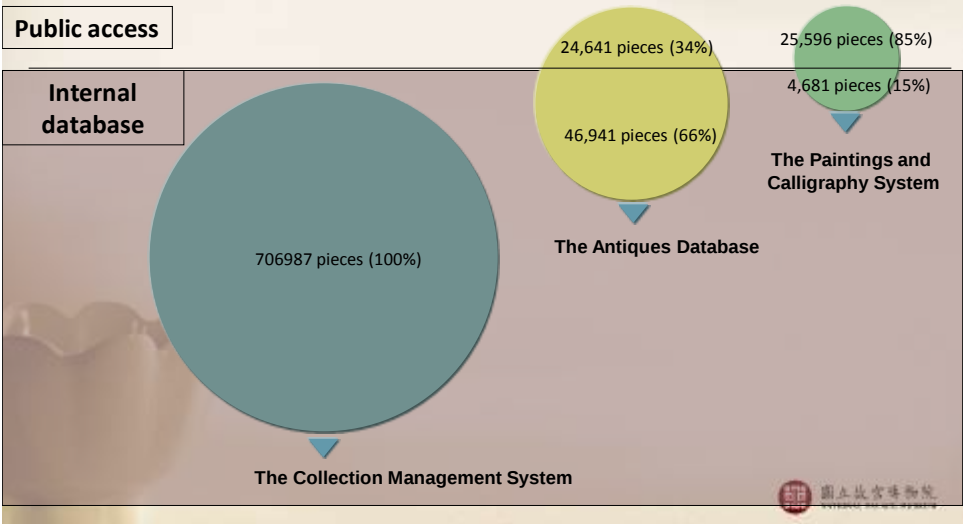
2009/10/14

3080
國立故宮博物院
WUPEIKUAI 333.333.333.333

本院對外公開文物典藏資料庫比例(2009)



Accessability of Databases to General Public (March, 2011)



數位典藏成果產出（五）

故宮藏品管理系統（供院內使用）

- 為使本系統功能更加完備，於2008進行系統功能擴建，預計2009年底測試完畢正式上線使用。



數位典藏成果產出（五）

故宮藏品管理系統（供院內使用）

- 文物基本資料頁面：提供瀏覽文物資料及相關影像檔，並有高解析度圖檔瀏覽功能，提供研究人員可以更詳細觀賞文物細部圖像。



數位典藏成果產出（五） 故宮藏品管理系統（供院內使用）



數位典藏成果產出（五） 故宮藏品管理系統（供院內使用）



文物修護記錄系統

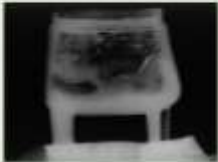
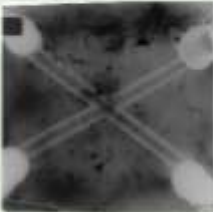
(已整合至故宮藏品管理系統，供院內使用)

The screenshot displays the "National Sun Yat-sen Memorial Hall Collection Management System" (國立故宮博物院 集藏管理系統). The main section is titled "One-click entry of conservation records" (一鍵式登錄修護紀錄). It includes search filters for document type, accession number, and date. Below the filters is a table listing conservation records.

科別室編號	文物統一編號	修復紀錄流水號	開始日期	結束日期
ZT000004	中國00000000000000000000	000	開始	結束
ZT000005	中國00000000000000000000	004	開始	結束
ZT000006	中國00000000000000000000	005	開始	結束
ZT000007	中國00000000000000000000	006	開始	結束
ZT000008	中國00000000000000000000	007	開始	結束
ZT000009	中國00000000000000000000	008	開始	結束
ZT000010	中國00000000000000000000	009	開始	結束
ZT000011	中國00000000000000000000	010	開始	結束
ZT000012	中國00000000000000000000	011	開始	結束
ZT000013	中國00000000000000000000	012	開始	結束
ZT000014	中國00000000000000000000	013	開始	結束
ZT000015	中國00000000000000000000	014	開始	結束
ZT000016	中國00000000000000000000	015	開始	結束
ZT000017	中國00000000000000000000	016	開始	結束
ZT000018	中國00000000000000000000	017	開始	結束
ZT000019	中國00000000000000000000	018	開始	結束

At the bottom right, there is a logo for the National Sun Yat-sen Memorial Hall and the page number 37.

文物修護記錄系統							
(已整合至故宮藏品管理系統，供院內使用)							
狀況拍攝 Condition	位置 Location		殘定描述 Description				
	正偏 Position		正和偏描述內容 (over the defect or around) (缺陷對一側/coverage on/around), 所有遺物位置 (每一面/coverage on surrounding faces) (半徑物位置 (radius of object))				
	背面 Backside		寫字編號貼 (date)				
	其他 other		拍攝物有損壞 (damaged object broken)				
修復處理 Treatment	順序 Sequence	修復步驟 Process	修復方法 Method	使用工具 Tools	使用材料 Materials	所需時間 Consumption	修復時間 Time
	1	清潔表面 (cleaned obj)	機械式 work	毛刷/牙刷, 消毒器-uv-ray			
	2	洗刷表面 (cleaned obj)	洗刷/brushed		酒精/alcohol	40% is damaged water	
	3	洗刷表面 (cleaned obj)	洗刷/brushed	竹刀/brushes handle	洗滌水中 damaged water		
	4	黏土填補 adhesive	黏土/brushed	—	Fastfix B72	20% is adhesive	overnight
	5	加膠牢度處理 consolidated	黏土/brushed	—	KLOCEL	20% is ethanol	overnight
	6						
拍攝前影像本 Image Type	數位 Digital						
修復影像記錄 Conservation Image							
修復前影像本 數位 digital		修復中影像本 數位 digital			修復後影像本 數位 digital		
							
更多 More		更多 More			更多 More		

X光影像紀錄資訊		文物基本資料 Basic info	
文物唯一編號 Object ID No.	中研0003-020000000		
原始編號 Original No.	798-11-02		
品名 Object Name	西周早期 琚卣		
原品名	琚卣		
登錄方式	舊藏		
原收藏者	中央研究院		
年代 Date	商-		
西元年代			
尺寸 Dimensions		重量 Weight	
線畫登錄		原收藏地點	中央研究院
接收日期		移交日期	
附送件名稱		附送件數量	
所有圖片	影像圖片		
X光影像紀錄 X-ray Image Record			
返回Home 修改基本 刪除X-ray 複製X-ray			
科學室編號 Lab No.	07000001	攝錄日期	2007-03-08
攝錄者	邱國福	數位化日期	2008-06-17
數位化室	數位室		
			

Collection Management System

(For Intranet only)

● 庫房管理系統 ●



用戶
密碼

登入

● 聯繫系統管理員



Collection Profile

基本資料					
統一編號	品·書-000016-1000000000				
統一編號後綴	組/000016 區/000016 共1頁				
標識編號	西三六23				
標識名	新世學自刻圖				
品名	萬柳堂學自刻圖 卷				
登錄編號	西-0043-000				
註冊位置	萬柳堂				
典藏單位編號					
典藏名稱	畫卷				
典藏單位	畫卷	來源方式	捐贈	保存位置	新世學自刻圖
保存分類	國畫	年代	清初	製作年代	
作者	鄭世學	尺寸		數量	1
媒質		版位號		登錄時間	
審品分類		審品品分號		主權分類	
典藏狀態	-	典藏狀態		保存日期	
初次日期		登錄編號	新世學自刻圖	存查編號	西-0043
登錄日期	18	編定日期	99-02-25	登錄	
所有圖片	所有圖片(20)	尺寸/分數		圖式	
備註					

Choosing the Picture: Taking "One Hundred Horses" for Instance

基本資料					
統一編號	品·書-000016-1000000000				
統一編號後綴	組/000016 區/000016 共1頁				
標識編號	西三六23				
標識名	新世學自刻圖				
品名	萬柳堂學自刻圖 卷				
登錄編號	西-0043-000				
註冊位置	萬柳堂				
典藏單位編號					
典藏名稱	畫卷				
典藏單位	畫卷	來源方式	捐贈	保存位置	新世學自刻圖
保存分類	國畫	年代	清初	製作年代	
作者	鄭世學	尺寸		數量	1
媒質		版位號		登錄時間	
審品分類		審品品分號		主權分類	
典藏狀態	-	典藏狀態		保存日期	
初次日期		登錄編號	新世學自刻圖	存查編號	西-0043
登錄日期	18	編定日期	99-02-25	登錄	
所有圖片	所有圖片(20)	尺寸/分數		圖式	
備註					

點選“所有圖片”
觀看文物圖檔

Images from Separate Parts of “One Hundred Horses”

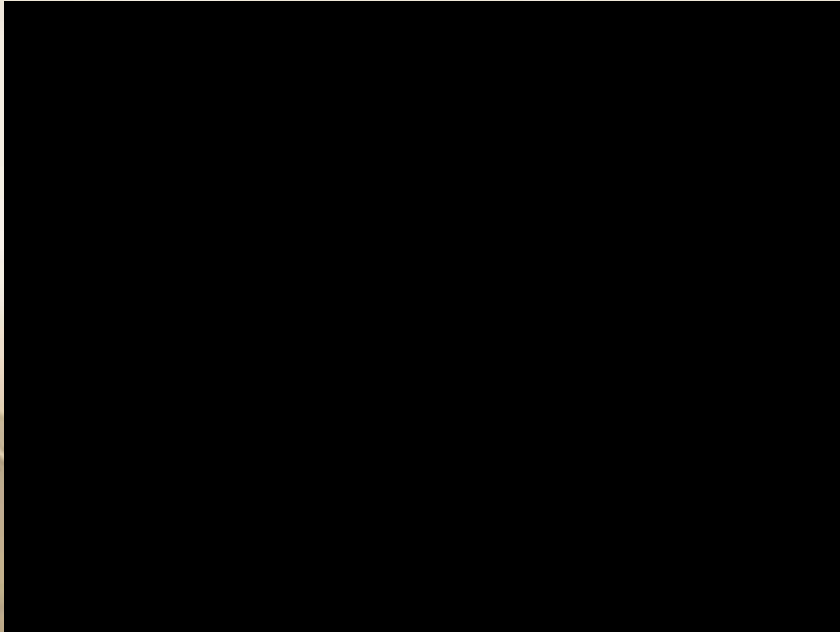
- JPG(1000*796 72dpi , about 256kb)
- Click to enlarge Images



iseemedia Flash Viewer



The Operating Process



The Digital Museum Project

Background

With the help of state-of-the-art multimedia and information technologies, the NPM can present the digital collection in a lively thematic way to the public.

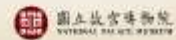


The Digital Museum Project

Main tasks

Present the beauty of collections in various ways:

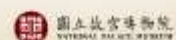
1. WEB
2. E-Newsletter
3. CD/DVD
4. Films/ Movies/ Drama/ 3D animation
5. Interactive Kiosk & VR



The Museum Website

- **Concept of Web Design**

- User Oriented
- Modularized
 - Quality
 - Efficiency
 - Security
 - Cost





NPM Global Website (9 Languages)

<http://www.npm.gov.tw>

<http://www.npm.edu.tw>

<http://npm.museum>

<http://taiwan.national.palace.museum>

NPM Virtual Museum

<http://www.npm.gov.tw/vrmuseum/>

Demonstrated in Chinese version
at present time



國立故宮博物院
NATIONAL PALACE MUSEUM



NPM e-Learning Courses

<http://elearning.npm.gov.tw/index.htm>

NPM Themed Websites

http://www.npm.gov.tw/zh-tw/collection/theme_01.htm



國立故宮博物院
NATIONAL PALACE MUSEUM

故宮全球資訊網：展場虛擬實境導覽

- 建置展場虛擬實境導覽系統，提供策展人簡介、策展理念、策展甘苦談及展場介紹等深入導覽資源。



NPM e-newsletters

<http://enews.npm.edu.tw/>



Films & Documentary

<http://www.npm.gov.tw/zh-tw/downloads.htm>





1. Behind the Palace, Beyond the Horizon
2. Drama: The Passage
3. In the Golden Age of Chinese Craftsmanship
4. Image Advertizement
5. 3D Animation: Adventure in the NPM
6. INSIDE: the Emperor's Treasure
7. A Museum without Walls



“歷史典藏的新生命”
拍攝過程照片



《經過》



「時間只是經過，剛好留在這裡」。《經過》，以故宮為場景，在這些場景裡，導演鄭文堂用蘇軾的《寒食帖》串起了關於時間、記憶、一些流離與情感的故事，戴立忍、桂綸鎂與日本演員蔭山征彥，他們在這裡找尋一些遺落很久的東西……。



《盛世裏的工匠技藝》



「技藝，是人在宇宙中為自己找到的位置」—法國人類學家李維·史陀。人類文明進程的本質是手工，雖然有水利、風力、輪軸與槓桿，但那是為了手工的效率。整個西方工業文明的興起到現在不到五百年，比起悠久的手工文明，我們的記憶還是手工的。因為造型的原理、美感的確立、質感的分別，都是在手工時代逐漸確立和完善的。文明的最高統治者—皇帝。擁有享用最高手工工藝品的權利，他的住、衣、食、行是最宏偉、最精緻的手工製作。所以整個故宮的物品，是手工藝之集大成。



形象廣告

導入行銷之概念，透過電影美學及現代視聽科技的鋪陳，
重新塑造故宮形像。



毛公鼎：到故宮找流行影片
Mao-Kung Ting: Fashion in NPM



象牙球：到故宮找想像力影片
Ivory Ball: Imagination in NPM



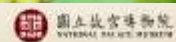
橄欖核小舟：到故宮找驚喜

翠玉白菜：到故宮找新鮮

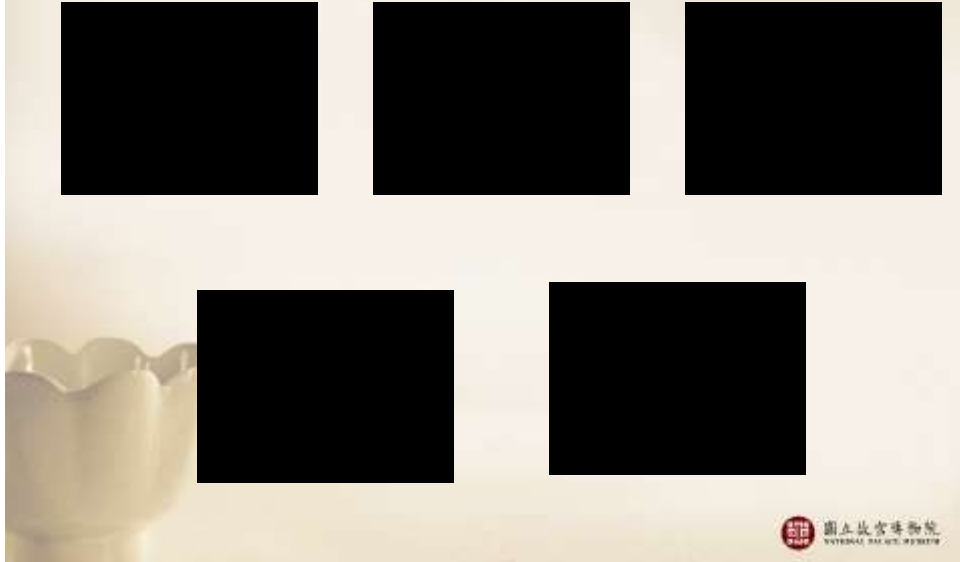
Carved Olive-stone Boat: Surprise in NPM Jade Cabbage: Freshness in NPM



Revolving Vase: Dreaming in NPM (Please click here)



Short Films



INSIDE: The Emperor's Treasure National Geographic Channel



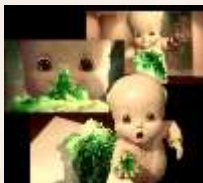
The Museum Without Walls

Documentary Film of NPM Digital Archive Program



The 3D Animation Orientation Film

Adventure in the NPM
(國寶總動員)



國立故宮博物院
NATIONAL PALACE MUSEUM

國寶總動員

- 由國立故宮博物院結合研究人員、教育推廣人員以及高科技數位業界所共同製作的3D動畫影片。
- 以故宮收藏的宋代定窯嬰兒枕、玉鴨以及漢代玉辟邪三件精采的藝術品為原型，創發出頑皮、詼諧及智慧的三位主角人物。
- 引領觀眾對故宮藏品的認識，同時體驗本院曾經歷的文物遷運歷史。



國立故宮博物院
NATIONAL PALACE MUSEUM



66

國立故宮博物院
NATIONAL PALACE MUSEUM

得獎訊息(續)

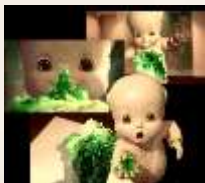
「國寶總動員」3D動畫影片

- 2007年國際博物館與文化資產多媒體展示及競賽會議 (FI@MP)：影視類 - 震撼獎
- 東京動畫影展：公開徵選作品類 - 首獎



The 3D Animation Orientation Film

Adventure in the NPM
(國寶總動員)

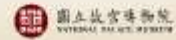


國立故宮博物院
NATIONAL PALACE MUSEUM
台北·台灣

The Digital Learning Project

Background

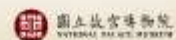
Begun in 2003, this project proposes to present its rich collection in an online teaching format suitable for local and overseas viewers.



The Digital Learning Project

Main tasks:

- Building a “The Digital Learning Demonstration Center”
- Setting up a “Wireless Tour System”
- Establishing museum e-learning network



RFID-based Guide

Visitors are able to acquire the information of the selected artifact immediately via sensor- detecting



Digital learning display system II





數位課程線上學習

「故宮e學園」數位課程

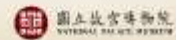
- 2003：青銅器中英文版系列課程
- 2004：陶瓷中英文版系列課程
- 2005：中國繪畫中英文版系列課程
- 2005：文物的續命中英文版系列課程
- 2006：法書及圖書文獻中英文版系列課程
- 2006：文物的修護中英文版系列課程
- 2007：中國玉器中英日文版系列課程
- 2007：文物的新認識中英文版系列課程

文物數位學習網



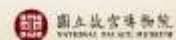
Presentation Outline

- Museum Brief Overview
 - History & Collection
- National Projects Introducing Innovative Technologies
- A Quick Look-back
 - What Has been Done
- **Latest Update**
 - **Focus on Interactivity**
- Showcase
 - The Multimedia Gallery of Paintings & Calligraphy
- Conclusion, Prospect, and Lesson Learned

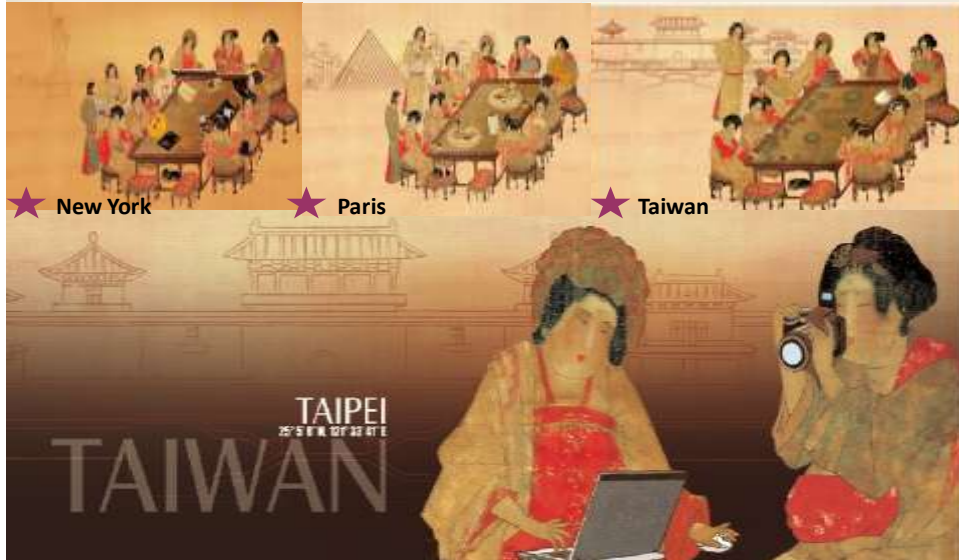


Interactive Kiosks

- **Purposes**
 - To invite conversations between museum contents and visitors
- **Types**
 - Context-aware System
 - Interactive Tabletop System
 - Virtual Display System
 - Virtual Panel System



Context-aware System *A Tang Palace Rhapsody*



Interactive Tabletop System

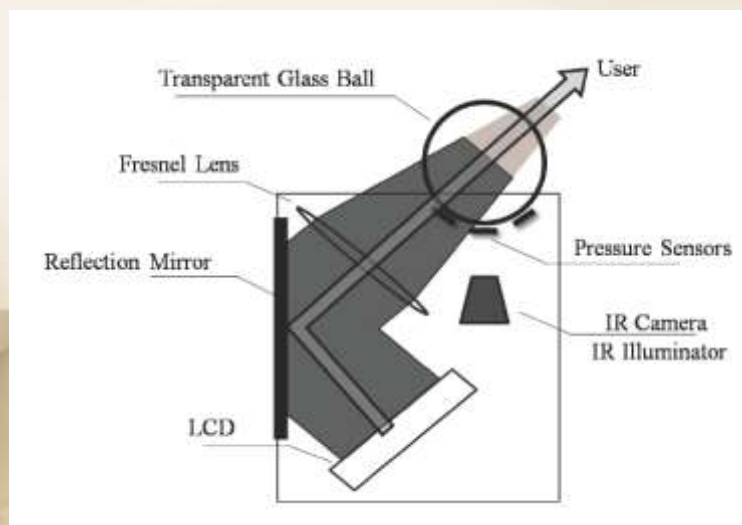
Must-see Interactive Tabletop for Paintings & Calligraphy

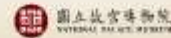


Virtual Display System *Magic Crystal Ball*



Interactive virtual display: Magic Crystal Ball





2008

- 2008-2009 **Passé-Future** Special Exhibition
- 2010 **NPM LOHAS** Special Exhibition
- 2011 **3D NPM** Special Exhibition

2009

- ### ● The Yongzheng Emperor and His Times Special Exhibition

2010

Hua-shan Creative Park

- NPM Digital Special Exhibition
- NPM Animation Special Exhibition
- Four Seasons in NPM Special Exhibition

Traveling Exhibitions

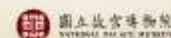
- National Treasures of NPM in Chia-yi, Beijing

2011

AAM Annual Conference & Museum Expo

Launched in the First Exhibition Building of NPM

- Beyond Landscape-Meeting Huang Gong-wang and New Deduction of the Landscape
- 210 Multimedia Gallery of Paintings & Calligraphy



NPM - Future Museum



Taiwan Taoyuan International Airport, Terminal 2

國立故宮博物院
NATIONAL PALACE MUSEUM

2008-2009 Passé-Future



★ Contemporary Interpretation of an Old Masterpiece

The Taste of Daily Life



國立故宮博物院
NATIONAL PALACE MUSEUM



2010 NPM LOHAS



Magic Crystal Ball

Turning Rust into Gold

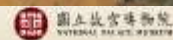
Inside



2011 3D NPM



3D Chinese Paintings



雍正 · 清世宗文物大展



2009 The Yongzheng Emperor and His Times



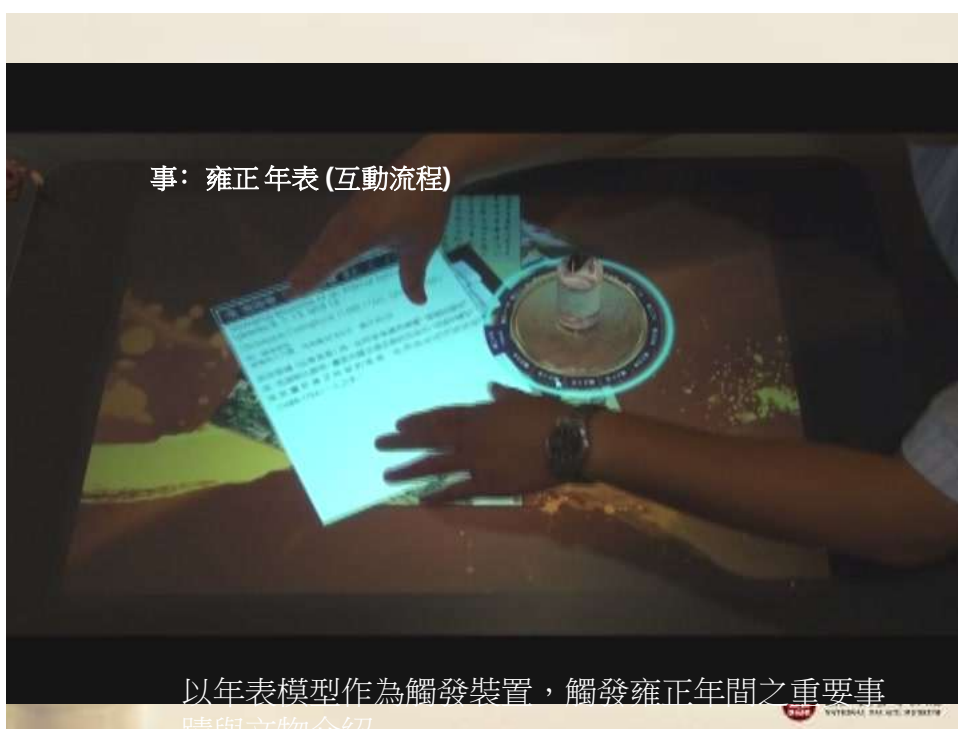
On-site Kiosks of Yongzheng Emperor



結合受歡迎「公仔」元素設計雍正展教育互動媒體







Hua-Shan Creative Park • NPM Digital

Must-see Interactive Tabletop

Opening Ceremony in 2010

Taste of Daily Life

國立故宮博物院
NATIONAL PALACE MUSEUM



Traveling Exhibitions National Treasures of NPM in Chia-yi



Traveling Exhibitions 2011 AAM Museum Expo



Beyond Landscape

Meeting Huang Gong-wang and New Deduction of the Landscape

- A joint exhibition of the special exhibition: **Landscape Reunited-Huang Gongwang and Dwelling in the Fuchun Mountains**



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Landscape Reunited

Huang Gongwang and Dwelling in the Fuchun Mountains



- Painted and completed by Huang Gongwang (1269-1354), one of the Four Yuan Masters, when he was 82 years old.
- Passed down through the generations, in 1650 owned by Wu Hongyu who consigned this painting to the flames on his deathbed.
- Suffered damage and separated into two sections, "The Remaining Mountain," 51.4 centimeters long and now an important work in the Zhejiang Provincial Museum. The latter part, composed of six joined pieces of paper, 636.9 centimeters long, entered the Qing imperial collection in 1746 and ranks as a national treasure of the National Palace Museum.
- For more than 360 years, these two sections of the original scroll have never been displayed together.

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The Landscape Transformed (山水化境)



A Legend in Art History (畫史傳奇)



Secrets to Depicting Landscapes (寫山水訣)



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Listen to the Painting (聽畫)



國立故宮博物院
NATIONAL PALACE MUSEUM

Painting a Dialogue with the Landscape (山水對畫)



Presentation Outline

- Museum Brief Overview
 - History & Collection
- National Projects Introducing Innovative Technologies
- A Quick Look-back
 - What Has been Done
- Latest Update
 - Focus on Interactivity
- **Showcase an On-site Application**
 - The Multimedia Gallery of Paintings & Calligraphy
- Conclusion, Prospect, and Lesson Learned

Multimedia Gallery of Paintings & Calligraphy

● Purposes

- To make up the gaps of low lighting and high rotation of paintings and calligraphic works
- To provide brighter, more holistic, and in-depth views to ancient Chinese painting and calligraphic works
- To help audience to interact with the artifacts and to explore those ingenious details



國立故宮博物院
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● Six Learning Areas

- The Orientation Film
- The E-museum Digital Database
- The Interactive Tables
- The Themed Exhibition
- The 3D Multimedia
- The Paintings and Calligraphy Theater



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- **The Orientation Film** guides our audience through the prized paintings and calligraphy collection. This area aims to promote the collective creative spirits between calligraphy and paintings.



- **The E-museum Digital Database** collects and exhibits the sites and CDs of the paintings developed by the NPM. With various thematic databases and sites, this area provides powerful tools for the audience to select, listen, and watch to create a diverse learning environment.

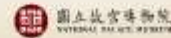


- **The Must-see Interactive Table** allows the audience to touch the screen to zoom in or out with fingers, allowing detailed inspection. You can also read the guide of the paintings or translation of the calligraphy to experience the joy of E-learning.

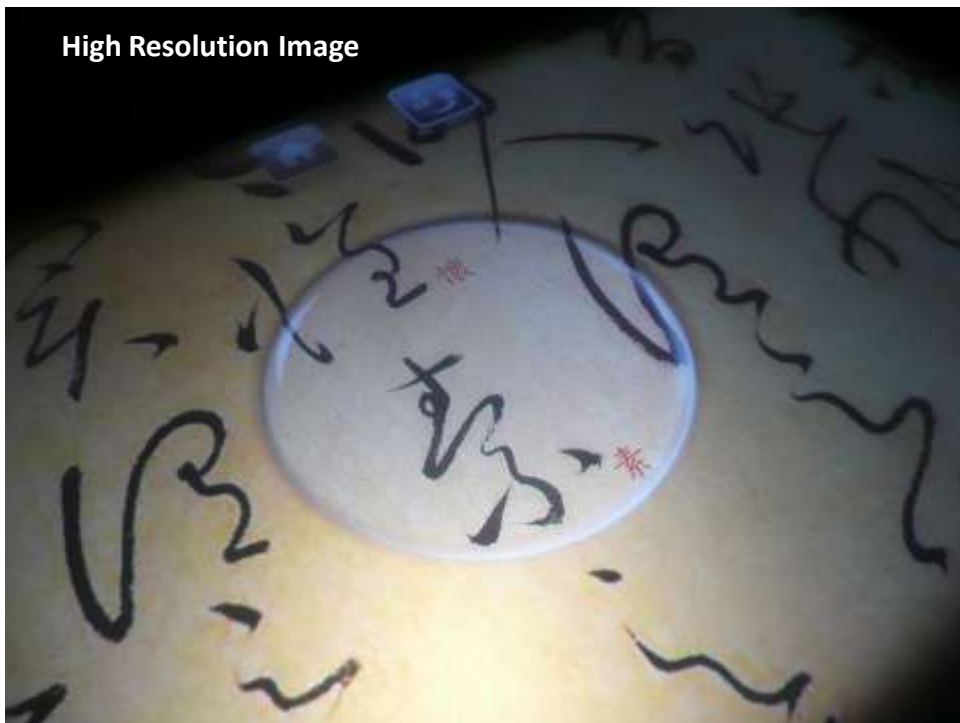


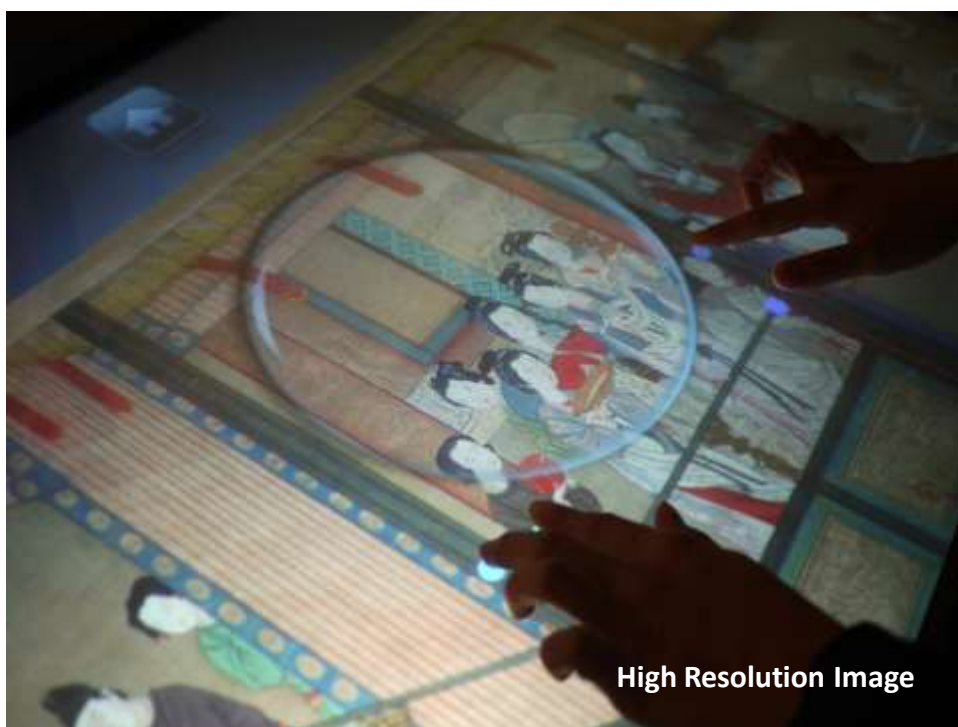
Paintings

Calligraphy

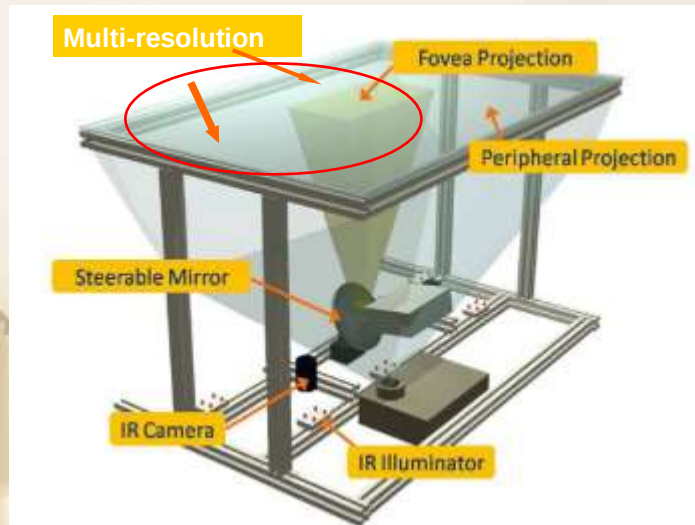


High Resolution Image





Livening up Paintings on the Tabletop



- **The Themed Exhibition** presents the paintings in a different view with multimedia systems in forms of hand-scroll, hanging scroll, and album leaves. With different framing styles, it takes the audience on a journey to travel through the mountains and rivers, to discover the wonders in quiet valleys, and to visit the city streets to experience the world created by the artists.

hanging scroll



hand-scroll



album leaves





- **The 3D Multimedia** utilizes the latest 3D experience imaging technology to present a full 3D experience. It puts you amid the concert with Tang Dynasty ladies for tea appreciation, music performance, and playing various literati wine appreciation activities.
- **The Paintings and Calligraphy Theater** plays films related to the theme of exhibition to enhance the atmosphere of group learning. With selected films on paintings and calligraphy, it not only creates an atmosphere for group learning, but also brings the paintings and calligraphy appreciation to a new level.



- With the technical support and donation of equipments from Delta Electronics, we are able to promote energy saving while displaying the beauty of our national treasures.



華山1914文化創意園區 精彩數位故宮：花氣薰人特展



Hua-Shan Creative Park • NPM Digital

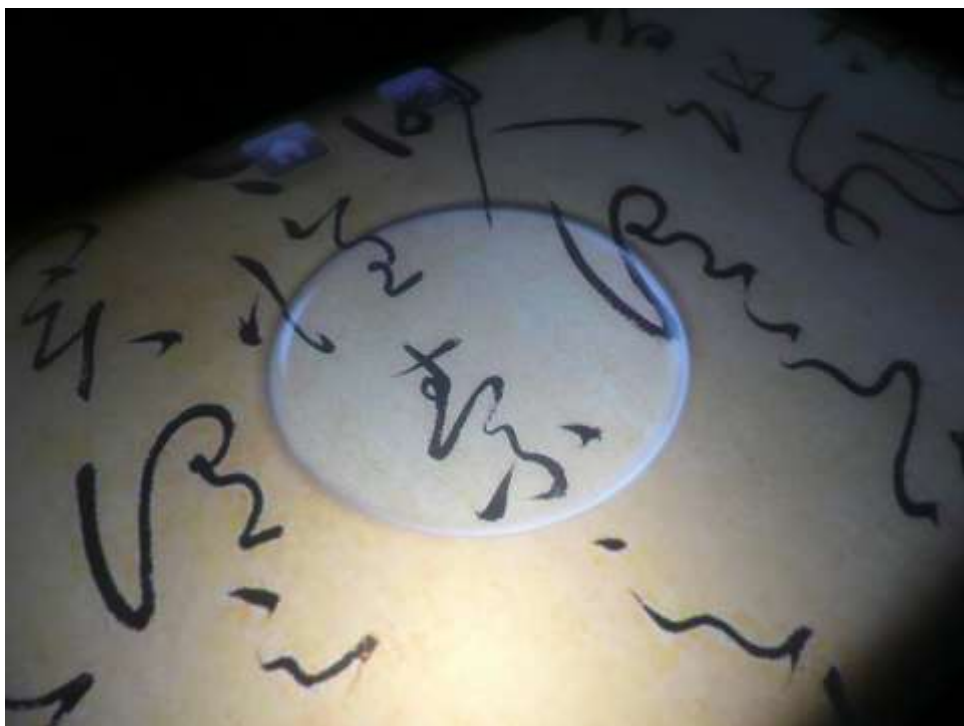






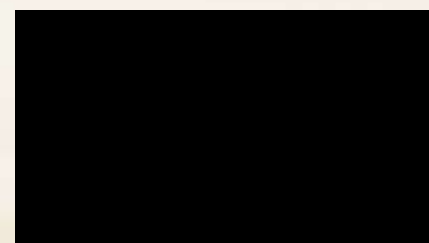
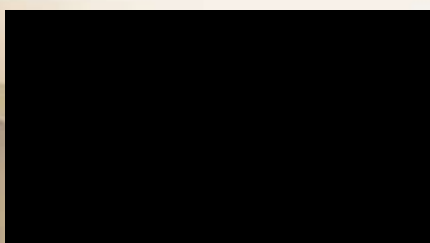
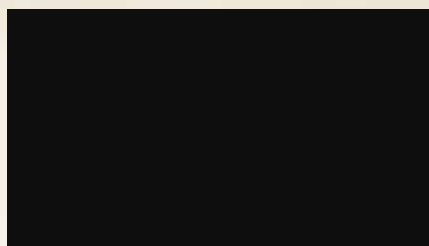
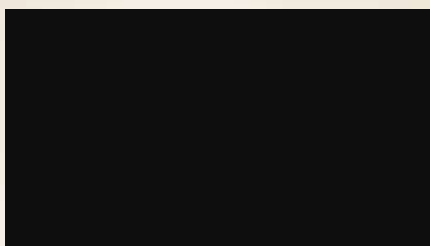








四季故宮



Presentation Outline

- Museum Brief Overview
 - History & Collection
- National Projects Introducing Innovative Technologies
- A Quick Look-back
 - What Has been Done
- Latest Update
 - Focus on Interactivity
- Showcase
 - The Multimedia Gallery of Paintings & Calligraphy
- **Museum Technology Foresight: Horizon Report Museum Ed.**
- Conclusion, Prospect, and Lesson Learned



2011 Horizon Report Museum Edition

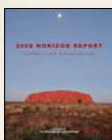
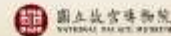


Acknowledgements

The research behind the *2011 Horizon Report: Museum Edition* is a collaboration between the New Media Consortium, the Marcus Institute for Digital Education in the Arts (MIDEA), a program of the NMC.



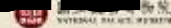
The Horizon Report > 2011 Museum Edition is a publication of the New Media Consortium.



18 Editions ◆ 24 Translations



2008





horizon.museum
The Horizon Project: Museum Edition

museum.wiki.nmc.org

The NMC Horizon Report: 2011 Museum Edition Wiki

Welcome to the workspace for the New Media Consortium's Horizon.Museum Project. This space is a place for the members of the Horizon.Museum Advisory Board to manage the process of selecting the topics for the *NMC Horizon Report: 2011 Museum Edition*. The annual report is produced by The New Media Consortium[®]. The report focuses on emerging technology and its applications to museum education and interpretation. This year will be the second year of publication for the Museum Edition.

Horizon.Museum is a project that applies the process developed for the New Media Consortium's Horizon Project[®] with a focus on emerging technologies for museums. Members of the Museum community involved in education and interpretation are encouraged to follow the Advisory Board's progress as the discussion unfolds and to use the wiki as a resource and reference tool.

What's New?

- The *NMC Horizon Report: 2011 Museum Edition Shortlist* is ready — see it here! [2011 Horizon.Museum Shortlist.pdf](#)
- The first round of voting is completed! Here are the tallies. [RQ tallies 2011 Horizon.museum.pdf](#)
- If you need a tour of the wiki, see the screenshot in the [Getting Started](#) area.

Project Timeline

Wiki Onboarding	Press Clippings	Research Questions	Top Pass Rankings	Review Short List	2nd Pass Rankings	Produce Report
✓	✓	✓	✓	✓	✓	✓

Review the timeline...

Introduction to the Horizon Project Wiki

This wiki is our primary work area, where you will find links to the discussions and activities in which we are actively engaged. You will see the chart above change as we move through the various processes involved in sorting through the technologies and issues we will deal with as we make our way to the final list that we'll feature in the *Horizon Report: Museum Edition*.

Horizon Report

- 2011 Horizon Report: K12 Edition
- 2011 Horizon Report: Higher Education Edition
- 2011 Horizon Report: Museum Edition
- 2010 Horizon Report: K12 Edition
- 2010 Horizon Report: Higher Education Edition
- 2010 Horizon Report: Museum Edition

2011 Horizon Report

Museum Edition

The word cloud features the following terms:

- museums
- museology
- digital
- technology
- preservation
- information
- new
- augmented
- mobile
- content
- report
- horizon
- education
- use
- access
- physical
- project
- web
- experience
- practical
- advisory
- even
- see
- apps
- reality
- publishing
- video
- research
- also
- make
- projects
- examples
- way
- used
- mobile
- research
- also
- make
- projects
- examples
- way
- used
- mobile
- research
- also
- make
- projects
- examples
- way
- used



Final Topics

2010

ONE YEAR OR LESS:

- Mobiles
- Social Media

TWO TO THREE YEARS:

- Augmented Reality
- Location Based Services

FOUR TO FIVE YEARS:

- Gesture Based Computing
- The Semantic Web

2011

ONE YEAR OR LESS:

- Mobile Apps
- Tablets

TWO TO THREE YEARS:

- Augmented Reality
- Electronic Publishing

FOUR TO FIVE YEARS:

- Digital Preservation
- Smart Objects

ONE YEAR OR LESS:

- TWO TO THREE YEARS:**

- ## FOUR TO FIVE YEARS:

- ### ONE YEAR OR LESS:

- ## TWO TO THREE YEARS:

- ## FOUR TO FIVE YEARS:

- Digital Preservation
- Smart Objects

ONE YEAR OR LESS:

Mobile Apps



ONE YEAR OR LESS:

Tablets



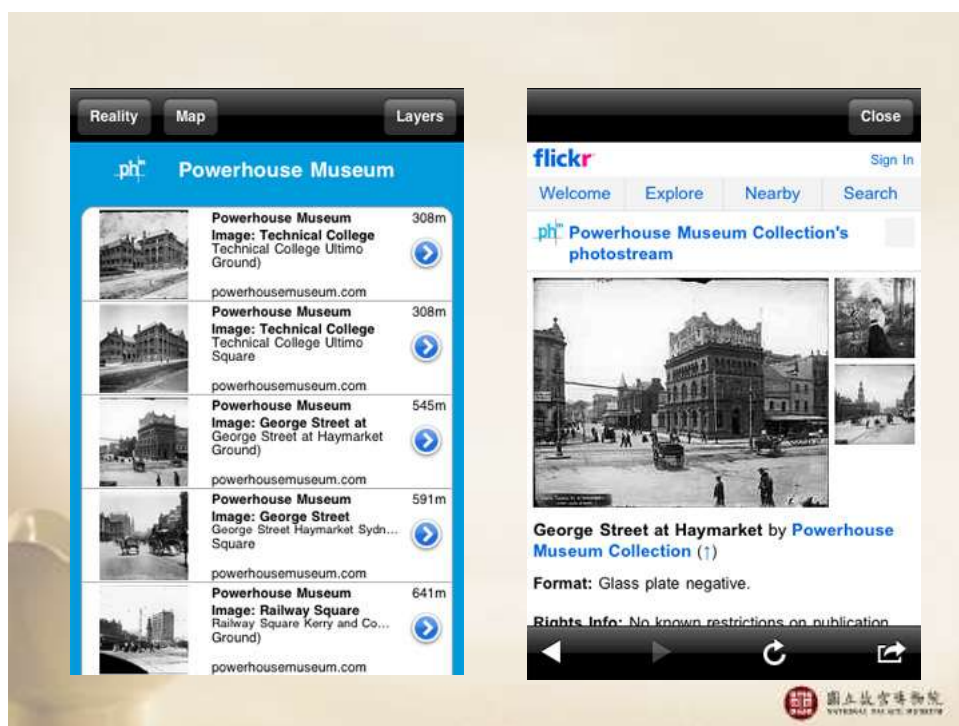


國立故宮博物院
NATIONAL PALACE MUSEUM

TWO TO THREE YEARS: Augmented Reality



國立故宮博物院
NATIONAL PALACE MUSEUM



TWO TO THREE YEARS:

Electronic Publishing



FOUR TO FIVE YEARS:

Digital Preservation



Installation view of Bjørn Melhus' *Still Man Out There*, 2003.

FOUR TO FIVE YEARS:

Smart Objects



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FOUR TO FIVE YEARS:

Smart Objects



國立故宮博物院
NATIONAL PALACE MUSEUM

Next Steps



museum.wiki.nmc.org

關鍵性科技	2009	2010	2010(museum)	2011(museum)
一年內會導入 Time-to-Adoption: One Year or Less	行動裝置 Mobiles	行動運算 Mobile Computing	行動運算 Mobiles.	行動運算 Mobile Apps
	雲端運算 Cloud Computing	開放式內容 Open Content	社交媒體 Social Media	平板運算Tablet Computing
二至三年內將導入 Time-to-Adoption: Two to Three Years	地理資訊 Geo-Everything	電子書 Electronic Books	擴增實境 Augmented Reality	擴增實境 Augmented Reality
	個人網頁 The Personal Web	簡易擴增實境 Simple Augmented Reality	位置感知服務 Location-Based Services	電子出版 Electronic Publishing
四到五年內將導入 Time-to-Adoption: Four to Five Years	語意網路應用 Semantic-Aware Applications	姿態感知運算 Gesture-Based Computing	姿態感知運算 Gesture-Based Computing	數位保存 Digital Preservation
	聰明物件 Smart Objects	視覺化資料分析 Visual Data Analysis	語意網路 The Semantic Web	聰明物件 Smart Objects



Download the 2011 Report
<http://go.nmc.org/2011-horizon-museum>

Sign up for 2012 Advisory Board
<http://bit.ly/horizon-nominate>

Jump In!

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Presentation Outline

- Museum Brief Overview
 - History & Collection
- National Projects Introducing Innovative Technologies
- A Quick Look-back
 - What Has been Done
- Latest Update
 - Focus on Interactivity
- Showcase
 - The Multimedia Gallery of Paintings & Calligraphy
- **Conclusion, Prospect, and Lesson Learned**



Conclusion, Lesson Learned, and Prospect

- **Conclusion & Lesson Learned**
 - Role of museums is changing
 - Trend of using technology is inevitable
 - In doing so, we need cross-departmental, cross-institutional collaboration
 - Using technology is not just a technical issue, it must combine art, technology, imagination, and creativity
- **Prospects**
 - **Mobile Computing**
 - New service model
 - **E-publishing**
 - **Cloud Computing**
 - Storage (images, video,...)
 - Service (art aggregation, educational media, ..)
 - Application (virtual tour with hi quality)



THANK YOU for Listening

Come Visit Us at Taipei!



jameslin@npm.gov.tw

