

國立自然科學博物館的故事

National Museum of Natural Science

1986~2015

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國立自然科學博物館的故事

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# 概況 Background

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## 使命與展望 Missions and Vision

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科學博物館可以分為兩大類：一為自然史博物館，一為科學技術博物館。「自然史博物館」涵蓋四大面向：「動物」、「植物」、「地質」和「人類」，也就是幾百年來博物學家走入大自然中，會看到的所有事物，其核心任務就是在蒐集自然界的生物和地質標本，並對這些蒐藏進行嚴格的科學研究，再將科研成果做科普轉化，成為精彩的展示和有趣的教學活動，對參觀民眾講述自然界和生物的起源和演化的故事。在這個敘說的過程中，會強調生物與環境的交互影響關係，進而表現出各類生物求生存的獨特方式，希望讓參觀民眾有知識上的收穫和思想上的啟發。世界上的文明國家，在其首都多半都有一個歷史悠久、規模龐大的「自然史博物館」，不僅提供這個國家自然環境的忠實紀錄，同時也是國民求知與休閒的良好場所。

Science museums can be divided into natural history museums and science and technology museums. Natural history museums cover four main fields: zoology, botany, geology and anthropology. The core responsibilities of curators in these museums are to collect specimens from the natural world which they use to carry out scientific research. Research results are then applied to the development of exhibitions and educational activities to allow the public to better understand the origins of Earth and its life forms, as well as the process of evolution. In this type of narrative, the interdependent relationship between living organisms and the environment is emphasized and the unique survival mechanisms of species are presented. The objectives are to pass on science knowledge and to stimulate the thought process. In developed countries around the world, especially in capital cities, there are often large natural history museums with long histories. These are not only venues for preserving



另一方面，「科學技術博物館」則包含了「物理」、「化學」、「生物」、「數學」和「科技發展」等幾個主要面向，其中「物化生數」是解釋自然界現象背後科學道理的基礎知識，「科技發展」則在於展示國家的技術成就，並說明這些成就如何改進民眾的日常生活和增進人類整體的物質文明。

國立自然科學博物館（科博館）最初設立時，是比照世界上首都城市中的國家級

「自然史博物館」來規劃的，但因為當時人們對「自然史」這個概念實在陌生，因此在規劃過程中加入了「科學中心」的概念和組成，以趣味活潑的科學互動展示提高觀眾的參觀興趣，也就成了今天的「自然科學」博物館。沒想到

這種「自然」與「科學」兼容並蓄的初期規劃，卻給科博館帶來了更寬闊的科學推廣空間！因為科博館可以讓民眾「從自然接觸科學，以科學理解自然」，從基礎科學的「裏」，說明自然環境的「表」，讓「批判性思考」和「探究式學習」在科博館有了充分發揮的空間！

也就因為科博館涵蓋了多個面向，使得工作人員的負擔甚重，經過了三十年的經驗積累，每年推出十餘個大小展覽，上萬場的科教活動，以及國內的到校服務和國外的研究合作，讓三百多名工作人員和一千多名志工忙碌萬分。但是科博館同仁一向以來的工作理念，就是在博物館這個優質的環境中，

the natural history of a particular country, but are also places to seek knowledge and recreation.

Science and technology museums focus on physics, chemistry, biology, mathematics and technological development. Physics, chemistry, biology and mathematics are used to explain the scientific principles of natural phenomena. The technological development aspect involves exhibiting the technological achievements of a nation and explaining how they have improved daily life and human civilization.



In its initial phase, the National Museum of Natural Science (NMNS) followed the examples of natural history museums in capital cities. However, as natural history was an unfamiliar concept in Taiwan at that time, the Science Center was added to provide interesting and interactive exhibits. Thus, this became a "natural science" museum. This combination of "nature" and "science" has given NMNS a broader platform for promoting the sciences that is based on the concepts of "coming in contact with science through nature and understanding nature through science". Through these concepts the public is encouraged to carry out critical thinking and explorative learning.

The responsibilities of the museum's staff are many and varied. Every year, more than 10 small- and large-scale exhibitions and a great number of educational activities are organized. In addition, there are visits to schools in Taiwan and collaborative research projects with institutions overseas. These activities fill the schedules of the more than 300 staff members and 1,000 volunteers. These staff members and volunteers



充分學習、自我成長，同時幫助社會大眾提升科學素養，引導社會大眾接觸自然，體會「學習的趣味」和「知識的謙卑」，然後才會真正明瞭「學得越多，知道得越少」！

由此可知，「學習」和「分享」是科博館最重要的兩件事。「學習」的本身就是一種喜悅，而獨樂樂不如眾樂樂，「分享」所學到的知識讓這種喜悅更為提升！「學習」和「分享」是生命中最具正向意義的兩件事，在科博館的優良環境中，這兩件事每天都在上演！也正因為如此，許多人在公餘之暇或退休之後，就到科博館來擔任志工，對科博館貢獻良多，而他們在科博館的「學習」和「分享」，也讓他們的生活充滿了正向能量！同樣的，科博館同仁們也覺得工作中最好的回饋，就是觀眾離館時臉上的笑容和臨別的道謝！

view NMNS as an outstanding environment for learning and personal growth. They are devoted to elevating the level of science literacy in Taiwan and allowing the public to come in contact with nature, as well as to experience the "fun of learning" and "humility that comes with knowledge". They have truly come to comprehend the concept that by learning more, you understand just how little you know!

"Learning" and "sharing" are two of the most important features of NMNS. Learning is joy. Sharing knowledge increases this joy. Learning and sharing are two of the most positive and meaningful things that we do in life. Due to this, many people serve as volunteers in their spare time or following retirement and greatly contribute to this museum. Moreover, by learning and sharing they receive positive energy! For museum staff, the best feedback is the smiling faces and expressions of appreciation of the visitors.





科博館的運作靠的是活絡的團隊組織。不僅是學術組專責研究，科教組和展示組負責規劃優質展教活動，科博館的行政同仁也承擔了相當繁重的業務。一個編制三百多人的大館，所產生的人事、主計等事務十分繁雜，科博館的行政員額不多，在有限的人力下，秘書、人事、主計、政風，和典藏、資訊、公服、營運等科室，仍然發揮最大力量，協助學術組和三大園區（921地震教育園區、車籠埔斷層保存園區和鳳凰谷鳥園生態園區）正常運作，給了這個科教平臺最好的行政支撐。

在科博館每年大約三百萬人的入館觀眾中，有60%是中小學生，但科博館是一個社教場所，服務的對象不僅是中小學生，還包含了各年齡層的民眾，但是社會在轉變，成人的學習方式和過去大不相同，因此我們需要以創新思維來發展社會教育和終身學習，根據不同年齡之需求，創造「全世代的學習環境」，並針對不同知識背景的參觀民眾，發展「多層次的學習架構」，為全體國民，無論老小，打造一個能從小到老終身學習的優質環境！

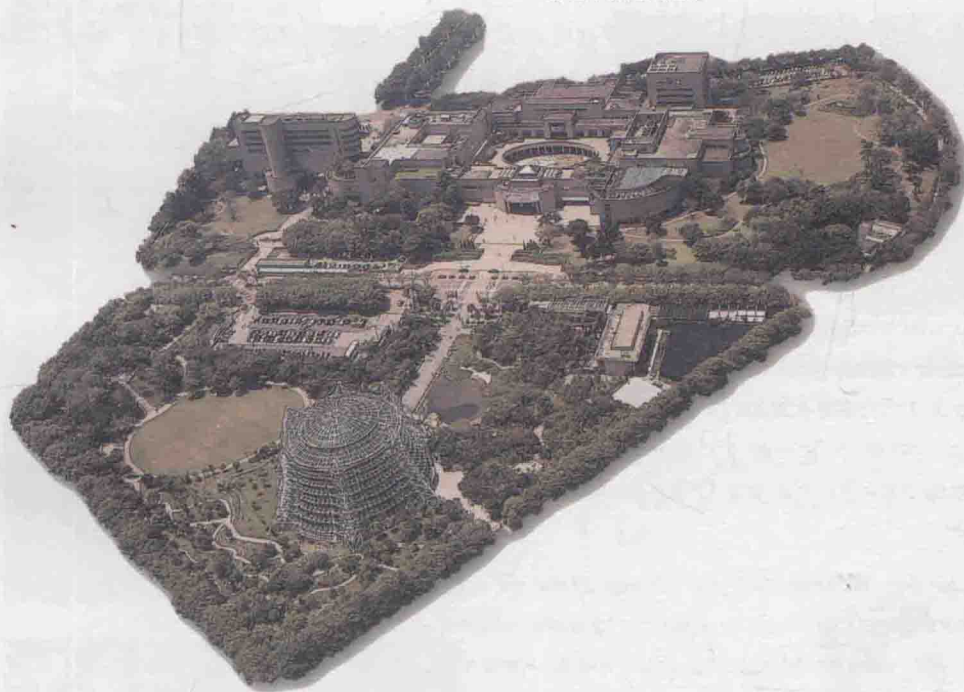
Smooth operation of this museum is dependent on its energetic team. This not only means the members of the academic departments who carry out research or those of the science education and exhibits departments who plan and organize exhibitions and educational activities, but also the administrative staff who have equally heavy responsibilities. Just in terms of personnel and accounting, there are numerous and diverse matters to handle in the management of a large museum with a staff of over 300 people. With limited human resources, the staff members of the Secretariat, Personnel Office, Accounting Office, Government Ethics Office, and Department of Operation, Visitor Service and Information Management all play valuable roles in the smooth functioning of the academic departments and the three natural science educational parks (921 Earthquake Museum of Taiwan, Chelungpu Fault Preservation Park and Fonghuanggu Bird and Ecology Park).

Every year, NMNS receives about three million visitors. About 60 percent are elementary and junior high school students. However, NMNS does not only serve as an educational venue for these students, but also for visitors of all age groups. However, with changes in society over time have come changes in learning methods. Therefore, we need to think creatively about how to develop our education function and encourage lifelong learning. According to the needs of different age groups, NMNS has created a "learning environment for people of all generations". Moreover, based on the level of knowledge of visitors, NMNS has developed a "multi-level learning framework" with layers of information. Thus, everyone who visits the museum can enjoy this outstanding lifelong learning environment!



科博館於民國75年落成開放，至今將近30年，然而歷經30年的滄海桑田，科博館在軟硬體上都到了需要脫胎換骨的階段。除了第一線直接接觸觀眾的展示和科教活動不斷推陳出新之外，我們也在有限的資源下，推動科博館軟硬體的全面更新，希望在另一個30年之內，能發展出全年齡（從小到老）、全時段（從白天到黑夜）、全方位（從自然環境到基礎科學）的科博館，在科研、教育和推廣上，成為一個能夠開創新風氣的研習和休憩的美好環境！

NMNS opened to the public in 1986 and has already been in operation for nearly 30 years. Over these 30 years, in addition to updating exhibitions and educational activities, this museum has continuously been working to upgrade its facilities and services, with limited human resources. Over the next 30 years, it is hoped that NMNS will develop into a comprehensive museum (from the natural environment to fundamental science) that is accessible to all age groups (from the very young to the very old) and at all times (from day to night). Through scientific research, education and promotion, an outstanding environment can be created for research, learning and recreation!



#### 國立自然科學博物館小檔案：

創建：1986年  
 創館館長：漢寶德先生  
 參觀人數：每年平均 300 萬人  
 蒐藏量：128 萬件 (2015/02)  
 本館佔地面積：87,276 m<sup>2</sup>  
 本館建築面積：83,214 m<sup>2</sup>  
 植物園佔地面積：44,856 m<sup>2</sup>  
 植物園建築面積：12,796 m<sup>2</sup>

#### FAST FACTS ABOUT THE MUSEUM:

Founded: 1986  
 Founding director: Pao-teh Han  
 Visitors: 3 million / per year  
 Collection size: 1.28 million specimens and objects (as of February 2015)  
 Land area of the main part of the museum: 87,276 m<sup>2</sup>  
 Floor space of the main part of the museum: 83,214 m<sup>2</sup>  
 Land area of the Botanical Garden: 44,856 m<sup>2</sup>  
 Floor space of the Botanical Garden: 12,796 m<sup>2</sup>

# 沿革

## Establishment of the Museum

國立自然科學博物館是1980年公布的國家12項建設中，三座科學博物館最先實現的一座。其籌備處在1981年成立，由行政院禮聘當時的國立中興大學理工學院院長漢寶德先生主持，確立本館建館目標有二：

- 一、闡明自然科學之原理與現象，啟發社會大眾對科學之關懷與興趣，協助各級學校達成其教育目標，進而為自然科學的長期發展建立基礎。
- 二、蒐集全國代表性之自然物標本及其相關資料（包括人類學遺物），以供典藏、研究，並為展示及教育之用。

In 1980, a plan for the implementation of 12 cultural construction projects was announced, which included the establishment of three science museums in Taiwan, of which National Museum of Natural Science is the first. The museum's Planning Office was set up in 1981, and the Executive Yuan appointed Professor Pao-teh Han, then dean of the College of Science and Engineering at National Chung Hsing University, to serve as director. The Planning Office set forth two goals for the development of the museum:

- (1) To explain the principles and phenomena of natural science and to stimulate the public's interest in science. In addition, to assist schools at all levels to achieve their science-related educational goals and to form a foundation for the long-term development of natural science in Taiwan.
- (2) To collect representative natural specimens from Taiwan (including anthropological objects) to contribute to the museum's collection and research efforts, as well as to its exhibition and education functions.

## 回顧 In retrospect

國立自然科學博物館採分期方式建館，各期完成之先後如下：

NMNS was constructed in several phases:

1986.01

科學中心、太空劇場及行政中心，總建築面積二千八百坪（9256 平方公尺），總經費達四億六千餘萬元。

The Science Center, Space Theater and Administration Building cover a total area of 9,256 square meters and were built at a cost of more than NT\$460 million.



1988.08



生命科學廳，建築面積約三千坪（9917 平方公尺），總經費達十一億三千萬元。

The Life Science Hall measures 9,917 square meters and its construction cost is NT\$1.13 billion.





1993.08



人類文化廳、地球環境廳，總建築面積共一萬一千八百七十六坪（39,260平方公尺），合計使用經費三十三億元。

The Human Cultures Hall and the Global Environment Hall occupy an area of 39,260 square meters and were completed at a cost of NT\$3.3 billion.



1999.07

植物園，由臺中市政府將五十四號公園預定地面積44856平方公尺，委交國立自然科學博物館規劃建設。

The 44,856 square meters of land upon which the Botanical Garden sits was originally set aside for the establishment of No. 54 Park. The Taichung City Government commissioned NMNS to develop this site.



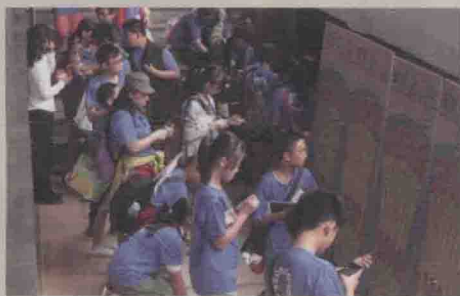


2004.09

921地震教育園區，於2004年9月21日啟用，2007年全園開放。

921地震教育園區，是隸屬於國立自然科學博物館的一座現址博物館，土地面積49776平方公尺，建築面積14842平方公尺。

The 921 Earthquake Museum of Taiwan began operation on September 21, 2004. This site, representative of the destruction of the 921 Earthquake, was placed under the management of NMNS. Its total area measures 49,776 square meters with 14,842 square meters of floor space. All of the current facilities were completed in 2007.



2013.01



成立自然科學教育園區管理中心

2013年1月1日，國立鳳凰谷鳥園併入國立自然科學博物館，並更名為「鳳凰谷鳥園生態園區」；2013年5月1日，位於南投縣竹山鎮的「車籠埔斷層保存園區」開放啟用，兩園區和921地震教育園區共同組成完整的生態與地質保存自然科學教育園區。

Establishment of the Administration Center of Natural Science Education Parks

On January 1, 2013, the Fonghuanggu Bird Park became a subordinate unit of NMNS and was renamed the Fonghuanggu Bird and Ecology Park. On May 1, 2013, the Chelungpu Fault Preservation Park, located in Zhushan Town of Nantou County, officially opened to the public. Together with the 921 Earthquake Museum of Taiwan, they form a comprehensive network for environmental and geological preservation and natural sciences education.