

Natural History Museums as Centres of Excellence in the Natural Sciences: Abstracts from the 2011 ICOM NATHIST Meeting

Eric Dorfman*

Whanganui Regional Museum, PO Box 352, Whanganui, 4540, New Zealand

INTRODUCTION

The world of the natural history museum is changing. In times past, the natural history museum was an academically-focused descendent of the 16th century *Wunderkammer*, a place for people to come and marvel at the wonders of nature that we collected in large numbers to explain patterns in nature as well as, one presumes, to impress those who viewed it.

Since then, the museum world has taken a more customer-focused and socially responsible view, thinking proactively about what they can contribute to major global issues and life-long learning. Modern natural history museums grapple with topics like wildlife conservation, invasive species and climate change. In doing so, they enter into conversations that are as much in the sphere of social media as academia.

A key component of keeping up with these trends is to be savvy and popular while remaining credible in terms of scholarship. This is not an easy task. It means being almost everything to

almost everybody. If museums are going to be capable of achieving this, they need to run institutions as the businesses they are. To do this requires new thinking borrowed from the corporate world, which is combined with traditional museology to create something that represents a major advance in the cultural sector.

The theme for the 2012 conference of the International Council of Museums Committee for Museums and Collections of Natural History (ICOM NATHIST) was *Natural History Museums as Centres of Excellence in the Natural Sciences*, in recognition of the emerging challenges and opportunities faced by the sector. It was hosted by the Natural History Museum, National Science Museum, Thailand, and delegates brought to Bangkok a wide variety of approaches to the topic.

A selection of papers presented at the conference are here represented as abstracts. Further information and imagery can be seen on the ICOM NATHIST website:

www.icomnathist.org.nz.

*Corresponding author.
Email: ericd@wrm.org.nz

THE ABSTRACTS

The role of ICOM in Thailand Somchai Na Nakhonphanom,

*Bangkok National Museum, 81/1 Sri
Ayutthaya Road, Dusit, Bangkok
10300, Thailand*

Abstract

In the reign of King Rama IV or King Mongkut (1851-1868) there existed a royal museum as a general museum with the royal collection of King Rama IV. The museum was his private one, not open to the public. In 1874 the first public museum was launched in the Concordia Hall, the pavilion at the Grand Palace, by King Rama V or King Chulalongkorn. In 1887 King Chulalongkorn had the museum removed from the grand palace to the palace of the Prince-Successor. The museum was called "Royal Museum at Wang Na" which collected a broad range of objects, before gradually becoming the National Museum, Bangkok in 1934. As a consequence, museums in Thailand developed rapidly. From one National Museum in Bangkok, we now have 44 National Museums across the country.

Thailand joined ICOM (the International Council of Museums) in 1947. National Museum, Bangkok become a museum within the Ministry of Education, so that the 1st National Committee for ICOM was set up under the Ministry of Education. The committee in the first decade was composed of people from the National Museum, Bangkok. In its second decade it was expanded

from a general museum to include people from science and natural sectors. Many museums were established such as archaeology, art, ethnology, history, monuments, historical parks natural history, science, natural parks, etc. Later on, many museums were set up in the same ministry and in various fields in many ministries. Also, many private museums were established and included a monastery museum.

We have been working closely with many ICOM partners in every region. In the beginning, we worked a great deal with India. Through them we have been acquainted to Dr. Grace Morley, a museum expert working in India. She helped found the Museum Education Program in the National Museum. The National Museum Volunteer Group was launched in National Museum, Bangkok through ICOM initiation in 1969. At present, the Thai National Committee for ICOM is composed of representatives from a variety of museums. The President and secretary are from the Ministry of Culture. The Thai National Committee for ICOM participated in various programs with ICOM Asia such as: "MAKING MUSEUM MATTERS" in Singapore 2007, and also joined the General Assembly many time as follows: ICOM in Korea 2004, ICOM Shanghai 201.

The Thai National Committee for ICOM has been working on activities both National and International. We hosted the Second Asian Regional Assembly on Ethnography in

Bangkok and Chiangmai, during December 10-15, 1979. ICOM Training Programs on "Teamwork for Integrated Emergency Management" in 2005, Thailand, and further training in Korea in 2007. In 2004, ICOM Initiated Inspirations for Museum Association of Thailand (MAT) was established. MAT activities on ICOM Code of Ethics Promotion in 2007 was translated to the Thai language and presented to their members. MAT followed up the International Museum Day, with a lecture on Museum and Universal Heritage in Thailand and also joined the General Assembly many times as follows: ICOM in Korea 2004, ICOM Shanghai. This conference of ICOM-NATHIST on "Natural History Museums as Centers of Excellence in the Natural Sciences" is another step in the development for excellence of our museum works in Thailand.

Natural History Museum, National Science Museum, Thailand as a centre of excellence in the natural sciences

Somchai Bussarawit, *Natural History Museum, National Science Museum, Thailand, Technopolis, Khlong 5, Khlong Luang, Pathum Thani 12120, Thailand*

Abstract

Natural History Museum, National Science Museum was established in 1995, completed in 2000 and officially opened on the 29th of August 2001 as a Science Museum Project which was launched on the auspicious occasion of the 5th cycle

anniversary of Her Majesty the Queen, August 12th, 1992. The objectives of the Natural History Museum are to act as a National Reference Collection on Biodiversity, as a Centre of Natural Science Exhibition and Science Communication, and as a Research Centre on Biodiversity in Thailand and neighbouring countries.

As a centre of excellence, education and public programs on natural science we are active in natural science shows, natural science camps, outreach programs, natural science talks and seminars, and professional development. Collaborators and networks are both within Thailand and abroad.

Museums as educational centres of excellence in marine biodiversity and conservation: a case study of the National Taiwan Museum

Su-fang Huang, Tsung-huang Hsiao & Wan-ting Lai, *National Taiwan Museum No.2, Xiangyang Rd., Taipei 10046, Taiwan*

Abstract

In the face of the rapidly deteriorating marine environment, maintaining sustainable development of marine resources has become an important global issue. Museums are the best educational institutions for teaching or learning about marine biodiversity and conservation. This report shares Taiwan's experience.

Surrounded by the sea, Taiwan is recognized as a marine organism hotspot. It has about 10% of the world's

marine species. National Taiwan Museum, as the oldest natural history museum in Taiwan, has abundant representative specimens of biodiversity, bearing witness to developmental changes in the natural environment of Taiwan for a century. In order to draw people's attention to the marine conservation issue, National Taiwan Museum specially planned the "Marine Taiwan--Ecological Conservation" special exhibition. In this exhibition, we used different multimedia methods, such as colorful pictures, interactive computer systems, video games, projectors, specimens, eco-diorama, virtual reality, microscopes, giant kaleidoscope, etc. to try to give the public an all-around experience of the wonders of Taiwan's marine ecosystem.

In order to reach out to the general public and make the information about our exhibition available to them, we used various promotion methods including: an opening press conference, online media (e.g. websites, Facebook, YouTube, blogs, e-newsletters), schoolteacher's workshop, junior summer camp, guided tours and volunteer training, to encourage the public to learn more about marine conservation and biodiversity. Within the 4-month duration, we successfully attracted over 200,000 visitors and became a popular field trip destination for many educational institutions. Moreover, the exhibition has stimulated various lively discussions and broad responses among teachers and students.

In the future, we expect to keep making more people aware of marine problems, encourage the public to cherish our resource, establish channels of cooperation with academic institutions and conservation organizations and construct a biodiversity data integration platform to share our resources with the global marine community, and to continue our work on numerous ongoing marine conservation initiatives in Taiwan. So, the museum can provide the public a comprehensive, diverse and excellent learning environment and experience on the marine conservation issue.

Nature Inspiration for Creativity: How the Natural History Museums capture the Future

Cholawit Thongcharoenchaikit,
*Natural History Museum, National
Science Museum, Thailand, Techno-
polis, Khlong 5, Khlong Luang,
Pathum Thani 12120, Thailand*

Abstract

The grand challenge for the twenty-first century of many Natural History Museums in Thailand is how to fulfill their mission by bringing the collection-based knowledge of biological diversity to modern society through their public programs. As globalization and technological trends have shaped a new generation of citizens, Natural History Museums need to stay relevant by keeping up. In this paper, Biomimicry is proposed as a means of learning from nature and adapting it to serve human

technological challenges in everyday life. The aim is to help shape the look and the role of the Natural History Museums in Thailand to become a centre of nature and an inspiring source of creativity for science and technology, as well as innovative art and design. The purpose is also to raise public awareness of how we can learn from the nature.

Research on amphibians and reptiles in the Thailand Natural History Museum

Yodchaiy Chuaynkern, *Natural History Museum, National Science Museum, Thailand, Technopolis, Khlong 5, Khlong Luang, Pathum Thani 12120, Thailand*

Abstract

The National Science Museum (NSM) was successfully established in 1995. The museum is the north of Bangkok (the capital city of Thailand) located in Technopolis, Khlong 5 Subdistrict, Khlong Luang District, Pathum Thani Province. NSM is presently subdivided into three museums namely the Science Museum, the Thailand Natural History Museum and the Information and Technology Museum. The late Jarujin Nabhitabhata (1950-2008) was the first herpetologist in the Thailand Natural History Museum. After he moved to work at the NSM in 1997, he kindly collaborated with both foreign and domestic scientists in elucidating the herpetofaunal diversity of Thailand. Along with his herpetologist colleagues, he described four new species of anurans: *Ansonia inthanon*, *Ansonia kraensis*,

Leptobrachium smithi, *Amolops panhai*. As for reptiles, seven new species of lizards were described: *Gekko taylori*, *Dibamus somsaki*, *Ptyctolaemus phuwaensis*, *Tropidophorus hangnam*, *Tropidophorus latiscutatus*, *Tropidophorus matsuii*, *Tropidophorus murphyi*.

At the present only three herpetologists are working in the museum, Tanya Chan-ard, Sunchai Makchai and Yodchaiy Chuaynkern. The natural history museum is divided into three divisions; collection division, research division and exhibition division. TC and SM are working in the Collection Division while as YC is working for the Research Division. There are over two hundred protected areas (e.g., national parks and wildlife sanctuaries) with high diversities of habitat located throughout the country. Therefore, research projects from the museum are conducted with our colleagues from abroad and domestic scientists. In this way, we can move forward together in elucidating the faunal diversity of Thailand.

Creating awareness of biodiversity and evolution in a megadiverse country

Maria Isabel Landim, *Division of Education and Outreach, Museum of Zoology of the University of São Paulo, Brazil*

Abstract

Brazil is a megadiverse country housing about 20% of global biodiversity. Our biodiversity is

facing huge pressures related to the fast economic growth our country has been showing in the last years. Consequently we became a hotspot for conservation policies. That means that instead of having some species threatened with extinction we have entire biomes facing quick degradation. As a centre of excellence in research on biodiversity and evolution within the largest University in Brazil, our museum has great social responsibility in sharing knowledge and promoting awareness on these subjects. The national curricular parameters (PCN+) for the education in Brazil states that at the conclusion of the secondary education students must be able to express critical thoughts on subjects such as the value of biodiversity. However, the quality of formal education is in a critical state as demonstrated by the results of the Program for International Student Assessment (PISA, 2006) on science where Brazil holds one of the lowest positions. Even the science teachers are incapable of elaborating and understanding basic concepts in Evolutionary Theory. Evolution is a key concept to address biodiversity questions. Despite this bad picture, the post-secondary and postgraduate education in some public institutions is of excellent quality. Research institutions in Brazil, like the Museum of Zoology of the University of São Paulo contribute to the number of publications on systematics and taxonomy internationally. Besides, the Museum of Zoology has one of the largest Brazilian animal

collections in the world. This brings, to our institution, a great responsibility in broadening the general scientific culture as an alternative to formal education. In this way, the very few museums of Natural History in Brazil are privileged places to share knowledge. Yet it is remarkable that Brazilians lack the habit of visiting museums. One strategy to attract the public is using special dates to promote more popular events. We also present here the new exhibition on Biodiversity (*Biodiversity: stay tuned!*) conceived from the point of view of São Paulo, the 4th largest city in the world.

Building centres of excellence in the natural sciences: the application of hypo-deductive reasoning

Eric Dorfman, *Whanganui Regional Museum; Vice President ICOM NATHIST; Chair ICOM New Zealand, PO Box 352, Whanganui, New Zealand*

Abstract

Centres of excellence have many different definitions but no internationally recognised ones, and no fixed formula for creating one. However, inasmuch as institutions want to improve and grow, garner funding, and be recognised for their achievements, creating a centre of excellence, whether formal or not, must be desirable. Goals commonly include producing highly ambitious, original and potentially groundbreaking excellence in frontline research, forming a joint physical community, are led by outstanding, visionary researchers, and possess an

ability to prepare the next generation and an international profile. In this paper I adapt a classic model of hypo-deductive reasoning to achieve and measure institutional performance, specifically geared to a natural history museum, with an aim toward building a centre of excellence. In this thought exercise, I make no distinction between institutions that are primarily geared toward research and those that focus on exhibitions. While this is a departure from traditional thinking about centres of excellence, it broadens its utility. By way of example, I apply this model to prioritising the creation of an informal research centre on moa (*Dinornithidae*) at New Zealand's Whanganui Regional Museum.

Platform 2022 a new model for engagement in sustainability

Eric Dorfman, *Whanganui Regional Museum, PO Box 352, Whanganui, 4540, New Zealand*

Abstract

Increasingly, considerable attention is being given to encouraging audience participation, driven in large part by social media. Fields as far removed from museology as tourism and health are finding that expectations of the public in being 'co-curators' of material that interests them. In this paper, I present Platform 2022, [www.](http://www.platform2022.org.nz)

platform2022.org.nz, an initiative of ICOM NATHIST, focusing on the wise of nature. Key features:

- All natural history museums and allied institutions are invited to add their name to this statement, which calls upon the world's governments to recognise the unique and powerful contribution we can make to a sustainable global future.
- An online exhibition invites everyone to contribute a photo of a favourite place and share how it might be affected by climate change.
- A collection of breathtaking images has been collected from museums and environmental agencies throughout the world. Encounter a range of creatures and locales that are seriously threatened by runaway climate change. Institutions are invited to create an exhibition using these images, which are made available free of charge.

The project has garnered the active participation of the World Association of Zoos and Aquariums, and Botanic Gardens Conservation International.

