



Two's Company with professors behind Lee Kong Chian Natural History Museum

# Telling stories, not science

**Building the museum and sharing the historic Raffles collection was a long-held dream for marine biologists Peter Ng and Leo Tan**



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They are the marine biologists who made the impossible happen,

raising \$46 million in just six months in early 2010 to set up the Lee Kong Chian Natural History Museum at the National University of Singapore (NUS).

When the museum finally opened in April this year with Professor Peter Ng Kee Lin, 55, as head, and his mentor Leo Tan Wee Hin, 70, as a senior member of staff, it was the culmination of a long-held dream for both.

Visitors to the museum spend much of their time gazing raptly at the trio of dinosaur skeletons dominating the first floor, but equally important for the scientists in charge is the historic Raffles collection of plants and animals established in British colonial times. It was the pride of the Raffles Museum in 1878, but it languished

in obscurity after Singapore became independent in 1965.

The collection moved from the newly renamed National Museum of Singapore to the then University of Singapore's department of zoology in 1972. Its name and home changed over the years, but the collection remained mainly the purview of scholars.

This was a pet peeve of those such as Prof Ng, an eminent crab researcher who encountered the collection while studying at the university under the mentorship of Professor Tan who, in turn, was the first to get a degree in marine biology from the University of Singapore.

Both believe anyone visiting a natural history museum will develop new appreciation for living

things and the need to conserve the environment.

"The reason for doing such a museum is to help people appreciate the beauty and wonder of nature," says Prof Tan. "Trying to convince people of the value of these things is an uphill battle."

Prof Ng adds: "People think a museum is a place for the dead. It's not, it's a place for people to learn at."

From 1998, Prof Ng was put in charge of the renamed Raffles Museum of Biodiversity Research, an academic museum open only to those affiliated with the university. Prof Tan was director of the National Institute of Education from 1994 until 2008, when he returned to NUS as professor and director of special projects, Dean's

Office in the Faculty of Science.

A year after Prof Tan "came home", as Prof Ng puts it, the Raffles Museum of Biodiversity Research was opened to the public for one day on May 24, 2009, International Museum Day.

To the surprise of both scientists, an estimated 3,000 visitors showed up to see what they had been missing. The Sunday Times ran a column titled Let's Have A Natural History Museum by Tan Dawn Wei and after that Prof Tan was approached by a mystery donor willing to offer \$10 million to start such a museum here.

After consulting NUS president Tan Chorh Chuan, they were offered a piece of land at the new University Town area, but learnt that they would require about \$30 million to build the museum. They had six months to raise the funds before the university reserved the space for other use.

"During that time, I was asked: 'What if you fail?' recalls Prof Leo Tan, who led the fund-raising efforts. "Failure was not an option. Until the deadline, I would not think of failure."

Amazingly, the scientists raised \$46 million within the allotted time - \$45 million from major donors including the Lee Foundation and Tote Board. Almost \$1 million came from members of the public who responded to Straits Times' articles about the museum, a public endorsement that validated both scientists' push for this project.

"People from every section of society gave what they could," says Prof Tan, eyes moist at the memory. "Secretaries, technicians. It was amazing."

**A PLACE FOR LEARNING continued on D2**

**Professor Peter Ng (left) and Professor Leo Tan raised \$46 million in six months in 2010 to set up the museum.**

PHOTO: LIM YAOHUI FOR THE STRAITS TIMES





Professor Leo Tan (left) and Professor Peter Ng want to correct the public perception of museums as dusty toms. PHOTO: LIM YAOHUI FOR THE STRAITS TIMES

# Making a place for learning

## FROM DI

Both scientists also wanted the museum to be a centre of research into the plants and animals that populate and have populated the world. It is a belief that brought them the museum's headline exhibit of full-size dinosaur skeletons: the 24m-tall and 27m-tall

adults nicknamed Apollonia and Prince, which come with a baby, Twinky, only 12m from head to tail. The skeletons were about 80 per cent complete when excavated from Dana Quarry in Wyoming – paleontologists throw celebratory parties over a skeleton just 30 per cent whole – and offered first to the

Singapore museum at a bargain price of \$12 million because those in charge of the dig heard the centre would be open to scientists coming to study the specimens. Again, donors stepped in to help the museum acquire the dinosaurs. On the days that Life visits the museum, gaggles of adults and

pupils stand in awe before the dinosaurs, quietly observing them, but many also roam around interactive displays related to the Raffles collection, watching video clips and listening to bird calls. "What's wrong with museums?" says Prof Ng, gesturing at the enthralled visitors. "It's time to

correct the public perception of museums as dusty toms." He and Prof Tan often get feedback from visitors young and old thrilled by the museum, many of whom did not expect to be fascinated by the experience. "You need to tell stories, rather than science," Prof Tan says.

"Some will see the science, but some will never come if you tell them this is about science. You're there to inspire those with an aptitude for science to stand there in awe and think: 'What if? What could I do as well?'"

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## Leo on Peter

### I have immortality through him

In the late 1970s, Professor Peter Ng Kee Lin was a teenager who needed help with a school project on fiddler crabs and so he went to Professor Leo Tan Wee Hin, an eminent marine biologist at the then University of Singapore.

Fast-forward nearly 40 years and Prof Tan is still helping Prof Ng with crabby tasks. On a recent trip to Borneo, he spent three days combing the jungle for a rare purple crab Prof Ng believed could be found there. In the end, he found an even rarer specimen, which he "smuggled" back to Singapore between two ice-cold cans of Coca-Cola to preserve the tissues.

Asked why he goes to such lengths for his protege, Prof Tan only smiles. "I spotted Peter when he was in junior college. That kind of student, you don't let go," he says. "I took him under my wing when he was 18 years old. There was this outer insolence – but I like a challenge."

Words to be expected from a person who took up marine biology in part because he nearly drowned learning to swim off Changi Beach when he was a child.

"We had no swimming pools in those days," explains Prof Tan, who turns 71 this year. "I became a marine biologist to conquer my fear of water."

The son of a clerk and a housewife, science was not on the family radar, yet he became the first person to do a doctorate in marine biology from the University of Singapore.

His initial area of interest was molluscs, but he became fascinated with crabs while doing his postgraduate studies at Duke University in North Carolina, United States.

When Prof Ng, then a teenager, approached him for help, Prof Tan was a senior lecturer with many demands on his time, but he felt – and continues to feel – that his first duty as a teacher is "to inspire those with an aptitude for science".

He also saw a kindred spirit in the younger man who was fascinated by the natural world, especially the relatively little-documented aqua-



PHOTO: ST FILE

**You reach a certain stage in life when time is not on your side, but if you get successors, the legacy continues.**

**PROFESSOR LEO TAN** (left, shown here in a 2014 file photo) on having immortality through Professor Peter Ng

tic fauna of South-east Asia. To this day, when Prof Tan travels, he has a litre of absolute alcohol in his luggage for preserving specimens and refuses maid service in hotel rooms because the sinks in his room are plugged up and made into makeshift preservation tanks.

So when the similarly collecting-crazy Prof Ng entered university as an undergraduate, Prof Tan offered him laboratory space to do research on lobsters, even though this was frowned upon in those days. Undergraduates were meant to absorb and study, while postgraduates did research.

"I told him there was a lot of money in aquaculture to interest him," he recalls, laughing. "He was very clumsy. He broke every piece of glassware in the lab."

Their connection remained even as Prof Tan was seconded to the Singapore Science Centre as its director in 1982, an appointment he took up full time four years later and held until 1991. After that, he became foundation dean of the School of Science at the National

Institute of Education (NIE) and was NIE's director from 1994 until 2008. He was also chairman of the National Parks Board from 1998 to 2007.

In 2008, he returned to the National University of Singapore as professor and director of special projects at the Faculty of Science, and began working with Prof Ng at the Raffles Museum of Biodiversity Research.

Married with two grown sons, he is looking forward to the time when he can take his two grandchildren, now under the age of three, to the Lee Kong Chian Natural History Museum and watch them learn about the natural world he loves so much.

But ask what his enduring legacy is and he does not mention the museum, but its head.

He says: "I've got immortality through Peter. You have to groom the next generation, that's your duty. You reach a certain stage in life when time is not on your side, but if you get successors, the legacy continues."

## Peter on Leo

### He's the real father of the museum

"The real father of the museum," is how Professor Peter Ng Kee Lin describes Professor Leo Tan Wee Hin.

"It was his energy that revitalised it, grew it, saw the potential, made it a top research outfit, then did the massive fund raising necessary and then oversaw everything to make it what it will be soon," says Prof Ng.

The 55-year-old also considers the 70-year-old scientist a mentor. Without Prof Tan's encouragement, he might never have become what he is today: a renowned expert on the classification, conservation and ecology of freshwater crabs, as well as head of the Lee Kong Chian Natural History Museum.

They met when Prof Ng was a teenager in Raffles Institution (RI) doing an extra credit project on fiddler crabs for the school science fair. The expert he sought help from was Prof Tan, the first person to receive a marine biology degree from the University of Singapore (NUS) and who continued as a lecturer there.

Then in 1980, when Prof Ng was doing his first year of undergraduate studies at NUS, Prof Tan allowed him space in his laboratory to do research on lobsters. This was unheard of in those days: the custom was to let only graduate students use university resources for research. Asked why he made this exception, Prof Tan says he had spotted in the younger man a student he could not "let go", one with a love for natural history that deserved to be nurtured.

During this time, Prof Ng went on a research trip to Pulau Tioman, found a big crab and used Prof Tan's laboratory to study the animal's larvae.

"It was like falling off the edge of a cliff. I've never looked back," says Prof Ng, who is married to a teacher and has three sons aged 12 to 20.

He did his postgraduate studies at NUS while teaching in secondary schools to make a living. After completing his doctorate in 1990, he stayed on to teach at the university and, eight years later, was put in



PHOTO: THE NEW PAPER, JONATHAN KHOO

**He is the man who has made it all possible. He made the museum what it is today as a world authority and a top, top outfit.**

**CRAB EXPERT PETER NG** (left, shown here in a 1993 file photo) on Professor Leo Tan

charge of the Raffles Museum of Biodiversity Research, the precursor of the Lee Kong Chian museum.

His love of animals dates back to his childhood growing up in East Coast. His father, who died when he was only seven, indulged the older of two sons and his habit of keeping fighting fish or eels. Later, Prof Ng's mother was busy running the family printing business and did not have time to stop her son from bringing home pets.

These included climbing perch and snakehead fish found in drains. A favourite hunting ground was also Chinatown, where snapping turtles were commonly sold and where Prof Ng bought a civet cat for \$10. "When I brought it home, my mother screamed at first, but she was too busy so she didn't scream too much," he recalls. "I kept it for a year or more before it ran off."

Employees at the family business also started bringing home live animals from their hunting expeditions in Johor to curry favour with the boss' son. The specimen Prof Ng remembers most fondly is a giant cream-coloured squirrel with huge teeth that his mother insisted

on returning. "It loved eggs and bananas. It was an absolute beauty. I wish I'd taken photos. It's probably extinct now," he says. "To think I used to play with it as a kid. It brings home the message that extinction is not too far away."

A passionate advocate for natural history, Prof Ng and his team did not let the Raffles Museum of Biodiversity Research collection stagnate. They expanded it and continued to classify the flora and fauna of Singapore. From 2004, he began holding informal talks with various parties, including the National Parks Board and Singapore Science Centre, on the possibility of establishing a natural history museum, which came to fruition this April with the Lee Kong Chian Natural History Museum.

"Museums are stuffy old places about the dead – these are perceptions that are not right. It's time to correct these perceptions," he says.

And this museum would not have existed without Dr Tan's effort, he adds. "He is the visionary and the powerhouse. I am just a crab scientist and administrator-cum-paperpusher."