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Illustration by Zhou Tao/Shanghai Daily

Meeting our ancestors on a trip back in time

New museum to trace origins of life, reminding us just how small we are in the process of evolution,

Wing Tan reports.

An intact giant skeleton of a 140-million-year dinosaur from Sichuan Province, creepy Loulan corpses from an ancient Silk Road city and a rich collection of mummies and fossils are the fodder of childhood fascination, and all will be on display when the Shanghai Natural History Museum reopens by the end of the year.

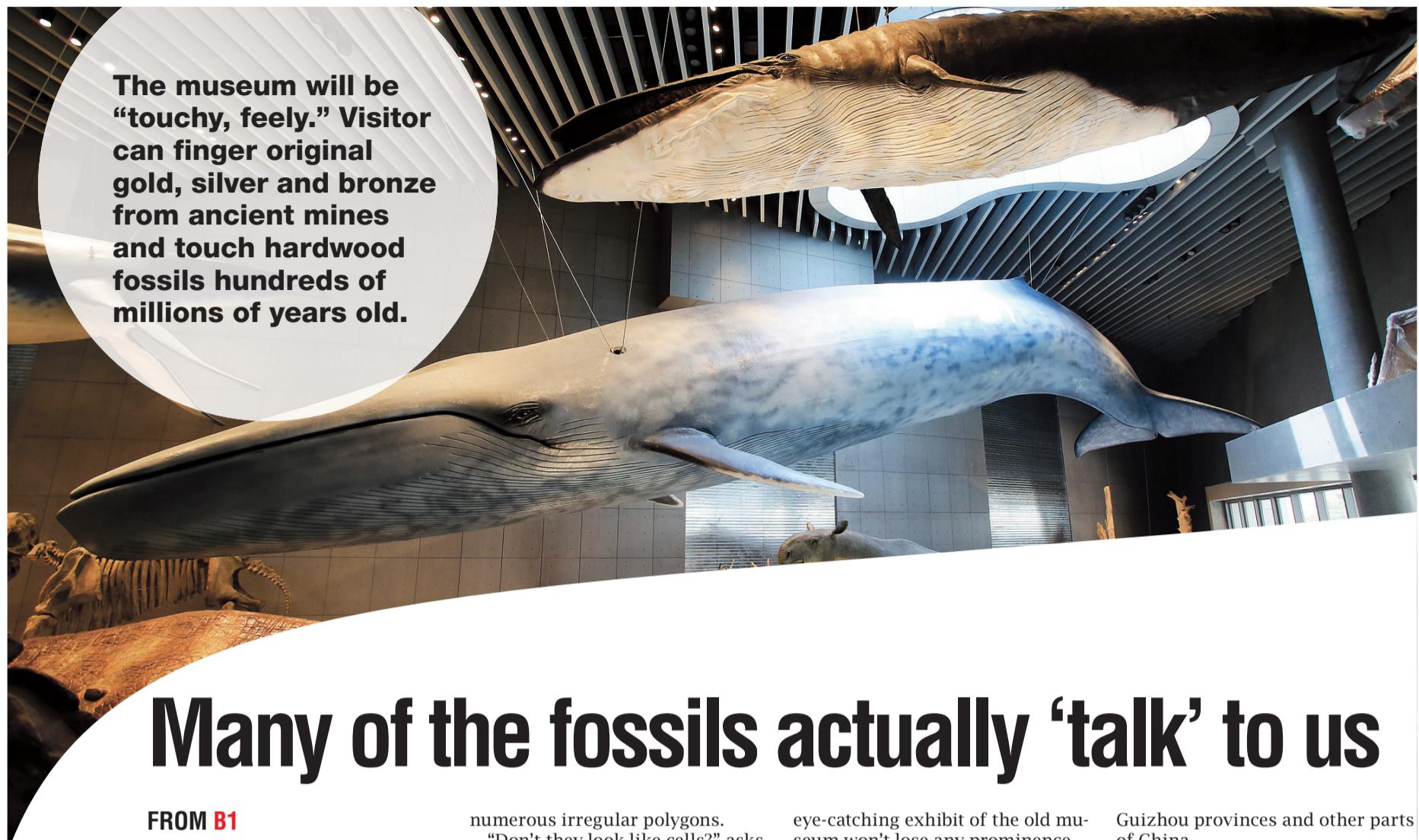
In short, visitors to the museum will

be able to travel through hundreds of millions of years during a one-day excursion.

The old museum, established in 1956 on Yan'an Road E., has been officially closed and a new 20,000-square-meter facility has been built in the leafy environment of Shanghai Jing'an Sculpture Park on Shimen No. 2 Road.

CONTINUES ON B2





Many of the fossils actually ‘talk’ to us

FROM B1

The new site has four levels, two of them underground, and an IMAX cinema and an array of special function rooms. Seen from a distance, the architecture looks like a giant prehistoric nautilus shell.

One highlight of the building is a rooftop garden accessed by a pathway that winds its way up from the ground floor, providing a gentle walk to a magnificent bird's-eye vista of the museum complex and surrounding parkland.

The central square of the new building features a sunken pond flooded with natural daylight. The main outside wall is designed with

numerous irregular polygons.

“Don’t they look like cells?” asks Xu Xiaohong, senior engineer of the museum’s engineering management department. “The cell wall symbolizes the evolution of life, from single-celled creatures to modern day humans. It’s an invitation to come in and journey through our origins.”

The new museum will feature a collection of more than 10,000 animals, mummies and fossils, all purchased, donated and borrowed from across seven continents. Almost 70 percent of the exhibits will be displayed here for the first time, while the remainder come from the old museum.

Among the wonders that await the public are some very precious dinosaur fossils from the Mesozoic era, such as the Lufengosaurus fossil found in Yunnan Province, and ancient mammals from the Cenozoic era.

The splendor of the African savanna ecosystem will be recreated by audio and visual techniques.

The 140-million-year complete Mamenchisaurus skeleton that was always the most

eye-catching exhibit of the old museum won’t lose any prominence in its new home. It will be joined by a 24-meter-long mechanized model of the Argentinosaurus, the world’s biggest dinosaur.

As for us human latecomers in the story of evolution, our relatively short time span, from australopithecine to homo sapiens, will be recreated in an imaginative exhibit using fossils and models.

Visitors walking along sloping pathway will first encounter an exhibition zone entitled “Mystery of Origin.” It will feature animal specimens, including apes, monkeys, polar bears, goats, deer as well as the Mamenchisaurus skeleton and the Argentinosaurus mechanical model.

Overhead, models of marine animals such as the blue whale, jellyfish and plesiosaurs will “swim” in the air above recreations of the ancient mammoth, glyptodont and megaloceros.

The museum will be “touchy, feely.” Visitor can finger original gold, silver and bronze from ancient mines and touch hardwood fossils hundreds of millions of years old.

Children will be able to get up close to dinosaurs fossils and specimens, such as pterosaurs, mosasaurs and tyrannosaurus, among many others.

At the other side of the hall, the exhibition zone will feature relics from the Cambrian, Triassic, Cretaceous and Cenozoic periods — all collected from archeological digs in Sichuan, Yunnan and

Guizhou provinces and other parts of China.

Those interested in more “modern” times can view exhibits depicting the Triassic period about 220 million years ago, when qianichthysaurus, anshunsaurus and trachyceras were Earth’s creatures.

One underground level deals with evolution mechanisms, such as the Cambrian explosion, when many of major animal groups suddenly appeared about 500 million years ago.

On this floor also will be the “Heyday of the Dinosaurs” exhibition, displaying dozens of large reptile fossil skeletons from land, sea and air, including the precious fossils of Sauropterygia and Polycotylus.

The exhibition materials were collected from Zigong in Sichuan Province, Junggar in the Xinjiang Uygur Autonomous Region, Erenhot in Inner Mongolia Autonomous Region, Zhucheng in Shandong Province and Liujiating in Gansu Province, among other places.

The new museum will replace the traditional read-and-tour method with innovative ways to encourage visitors to do a little scientific research on their own. They will be able to measure the size of an ancient humans brain, restore a dinosaur fossil and observe the homing routes of bees.

In order to make fossils and specimens “talk,” the new museum has installed augmented reality equipment. After downloading the app to a smart phone, a visitor can “hear” specimens describing themselves.

“You will see how tiny we human beings really are against the huge backdrop of hundreds of millions of years,” said Zhang Yunfei, deputy director of the museum’s specimens department. “We sincerely hope visitors will come out of the museum feeling a new respect for nature and history.”





SWEET OLD MEMORY

Marvels of dinosaurs, ancient corpses

Zhang Qian

WALKING into the British-style Natural History Gallery, the predecessor of the Shanghai Natural History Museum, was like entering a time tunnel.

Founded in 1956, the museum was the oldest of its kind in China. It was planned to cover astronomy, geology, anthropology, zoology and botany. The zoology part was completed first while the anthropology section was finished in the 1970s. The other sections were realized when the Shanghai Science and Technology Museum opened in 2001.

Most of its original 2,000 items are from two early museums in Shanghai — Musée Heude founded by the French in 1868 and Shanghai Museum of the Royal Asiatic Society founded by the British in 1874. Its collection gradually expanded to about 270,000 items. Considering its limited exhibition space, only about 2,700 pieces were on display at any given time. Everything else is kept in storage.

Traditional specimen displays and scene boxes were dominant. But these old-fashioned boxes won't be used in the new museum and the specimens will be replaced.

The dinosaur skeleton models and ancient corpses were often referred to as the gallery's highlights.

The gallery used to be one of the city's most popular science education spots, especially in the 1970s and 80s.

Housed in the former Shanghai Cotton Exchange, the gallery's 6-story building became a major obstacle over the years. Problems like aging wires and limited space have hampered its development.

Fire hazards, theft dangers and lack of parking led to complaints. And the establishment of other entertainment venues has made the museum less attractive.

Annual attendance slipped early this millennium to around 75,000, although the figures have been rising since 2009, when it was announced the museum would be moved.

The gallery, managed by the Shanghai Science and Technology Museum since 2001, officially closed on May 12.

Scan the QR code to view more photos of the new natural museum on www.shanghaidaily.com.
Photos by Wang Rongjiang



Philanthropist donates hundreds of specimens to natural history museum

Cai Wenjun

Kenneth E. Behring, an 86-year-old philanthropist and real estate developer, has become the biggest donor to the new Shanghai Museum of Natural History.

A total of 307 specimens valued at over US\$30 million donated by Behring have arrived in Shanghai to enrich the museum's collection. More than 30 of the stuffed animals belong to endangered species, including the bongo, a forest antelope of central Africa.

"There are only two (other) bongo specimens in the world, but we get two from Behring," said Zuo Huanchen, former vice mayor of Shanghai and board chairwoman of the Shanghai Science Education Development Foundation.

Behring has been working with world-class museums for more than 10 years. Since 2004, his foundations have developed animal exhibitions in China, including in the cities of Beijing, Shanghai, Tianjin, Dalian, Yangzhou, Shenzhen and Chongqing. Supplying specimens to seven city museums and eight Animal Exhibition Halls, the total value of these animals has reached over US\$70 million.

Shanghai Science and Technology Museum (SSTM), which opened in late 2001, is one of the biggest beneficiaries. Almost all specimens at the Animal World in the museum were donated by Behring. Behring started to cooperate with SSTM in 2004 and has donated more than 300 items, including 180 big mammals, museum officials said.

"When children see these animals, we see smiles on their faces," Behring said.

Greatest museum

When officials from SSTM, which manages the new museum of natural history, told Behring they wanted to move some specimens from the science and technology museum to the new museum, Behring said he would donate new animals instead.

Behring said he's excited about the new museum, which is in the process of relocating. He expressed confidence that it will be a modern facility that integrates exhibition and education, collection and research.

"It will be one of the greatest museums in the world, and I want my donation to make it not only one of the greatest but the greatest one," he said. "My donation to the new museum will be three times those to the Shanghai Science and Technology Museum, and those animals are all from Africa. They are not only animals but families from each species," he said. "We want children to really see true animals from Africa. This is education."

The new museum will have a special hall decorated like an African savanna to exhibit the specimens. Some specimens will be arranged to present scenes, such as a lion preying

on an antelope. A wide LED screen, 31 meters by 7 meters, will show a documentary of animal migrations across the savanna.

"I donated specimens ... to use museums as platforms in a larger plan to help educate, inspire and develop future generations of public and private sector leaders around the world," he said in his biography, "The Road to Leadership."

To boost science education and encourage children's love of animals, Behring also initiated an activity called Global Natural History Day with the Shanghai Science Education Development Foundation. It's a competition to inspire Chinese elementary and middle school students' interest in the fields of natural science and history. As an extracurricular educational supplement activity, this program encourages the use of research, analysis and critical thinking skills.

Winning teams will be sponsored to have a discovery trip to see real animals in other part of the world. Previous winners have gone to New Zealand and South Africa. The winning team this year will visit a wild animal protection reservation in China.

Person of purpose

Behring grew up in poverty and began to make money as a newspaper and milk-delivery boy at the age of 7. He became rich by becoming an automobile dealer and then a real estate developer. He has been listed several times on the annual Forbes 400 list of richest Americans. In 1997, his last year on the list, he ranked No. 395, with an estimated net worth of US\$495 million.

Behring wants more than riches, desiring to become a person of purpose.

"One of my first glimpses of it came in 2000, when I lifted a small Vietnamese girl from the ground and placed her in a wheelchair. In that instant, she found hope. And I knew that as much as she had changed in that moment, I had changed even more," he said in his book.

"For the first time I could remember, I felt joy. And I wanted to do everything in my power to keep that feeling alive. My desire for it turned me into a leader in the case of helping end immobility in the world."

He founded Wheelchair Foundation in 2000 to provide free wheelchairs for people with disabilities in developing nations. The organization has delivered over 938,000 wheelchairs to 155 countries around the world. In China, the Wheelchair Foundation has distributed more than 350,000 wheelchairs, with every province benefiting.

He also set up the Rural Area Safe Drinking Water Solutions Project in 2006 to provide safe drinking water to people living in rural areas. The project partners include the China Academy of Sciences, China Foundation for Disabled Persons and China Ministry of Water Resources.

In 2012, Behring was named a worldwide ambassador for UNESCO.



Zuo Huanchen (left), former vice mayor of Shanghai and board chairwoman of the Shanghai Science Education Development Foundation, shares a light moment with her long-time friend Kenneth Behring, who has donated a total of 307 specimens valued at over US\$30 million to Shanghai Museum of Natural History, at Shanghai Science and Technology Museum.



▲ Kenneth Behring signs his books for the winners of a global competitions of nature and science in 2013.

◀ Kenneth Behring donates a wheelchair to a Vietnamese girl in 2000. The joy of the girl impressed him so much that he found Wheelchair Foundation later to provide free wheelchairs for people with disabilities in developing nations.

On a mission to spread science and natural history knowledge

Christine Cai

ZUO Huanchen has quietly made a big impact on the city. She has been a medical expert in anatomy and a politician. She is also known for her famous great grandfather, General Tso, who is best known for his love of spicy chicken. She also raises money for two of the city's best museums — Shanghai Science and Technology Museum and the Shanghai Museum of Natural History, which will reopen later this year after moving to a new location on Beijing Road. She is active in promoting child and women's issues along with health and science across the city.

The 74-year-old seemingly has an endless supply of energy, keeping busy in a number of areas. She may be the biggest fundraiser for both museums and is instrumental in drumming up donations among Westerners.

Kenneth E. Behring, an American real estate developer and philanthropist, is the biggest single donor to both museums. His credit's Zuo's passion and friendship as the reasons he continues to give more money to both museums. "I give so many donations because of Madam Zuo," he says.

Zuo believes it is important that kids in the city have the chance to learn about nature and animals at the Shanghai Museum of Natural History.

"It's important to introduce these animals to the families of Shanghai," Zuo says. "Otherwise, children would never have the opportunity to view such beautiful animals from around the world. But each specimen is not just about a beautiful animal — all of them were created with great detail, and each one has a story. So children can learn and leave inspired. It's important they learn that human beings can live in harmony with animals."

She says museums and education are extremely important to improve the quality of the next generation. This guiding philosophy extends to everyone. Zuo has initiated a project called Mobile Science Museum.

With the program, mobile science equipment provided by Shanghai Science and Technology Museum is used to create "mini science museums" in sub-districts.

The goal is to promote modern science and technology in communities, especially in areas where people may be

struggling to make ends meet. Although officially retired, Zuo is a member of the Chinese People's Political Consultative Conference. She is also the board chairperson of both the Shanghai Science and Technology Museum and the Shanghai Science Education Development Foundation. At one time, she was the vice director of the Shanghai Health Bureau and later vice mayor of Shanghai for health issues.

Both of her parents were doctors, which inspired her to enter the medical field. Zuo was professor and doctorate supervisor at the Fudan University School of Medicine and also chief adviser on the Anatomy of China Society.

Her famous great grandfather was General Tso Tsung-tang, or Zuo Zongtang, who served during the Qing Dynasty (1644-1911) as a military leader and minister of foreign affairs. Many Westerners may not know of General Tso's military theories, but they may have tried the dish named in his honor. General Tso's chicken is a slightly spicy and sweet, deep-fried chicken dish commonly served in Chinese restaurants across North America.

Despite her age, Zuo has never considered taking it easy. Whenever she hears about wildlife specimens and fossils, she tries everything in her power to acquire them.

"They are all unique," she says. "Once one is destroyed, it's gone. There will never be another exactly the same. I always hope to do my best to get as many such treasures as possible for Shanghai and China."

She admits it can be difficult, especially after many countries, including China, tightened policies on imports and exports.

"I have to use my own resources sometimes," she says. "But that's not the most difficult part. It was really hard when the bird flu and food-and-mouth disease epidemics broke out. Imports of specimens of feathered creatures and hooved mammals were extremely difficult then."

Still, she perseveres and she feels good about the natural history museum's new location and the promise it holds.

"I hope it will develop into a cultural museum," Zuo says. "When it reopens, I plan to launch a science and technology week about the harmony between human and nature."



Zuo Huanchen hands technology books to students in the Xinjiang Uygur Autonomous Region in 2010. It was part of a project called Mobile Science Museum initiated by Zuo.

Fun and educational all at the same time

Shanghai has an astonishing number of museums, many of which are great for keeping young children engaged in various activities. Shanghai Daily takes a quick look at eight museums and shares some mini reviews by parents.

Shanghai Film Museum

上海电影博物馆

The Shanghai Film Museum on the original site of the Shanghai Film Group Corp in Xujiahui area screens films and film clips. It also exhibits old props, costumes, memorabilia and equipment. Important events in the history of Shanghai cinema, actors, actresses, directors and other figures will be covered in exhibits, including video clips.

The museum also explains the production of "Yan Ruisheng" (1921), China's first full-length feature based on a famous Shanghai murder case. Exhibits cover the first Chinese martial arts film "Burning the Temple of Red Lotus" (1928) and China's first sound film "Sing-song Girl Red Peony," both made by a Shanghai film company.

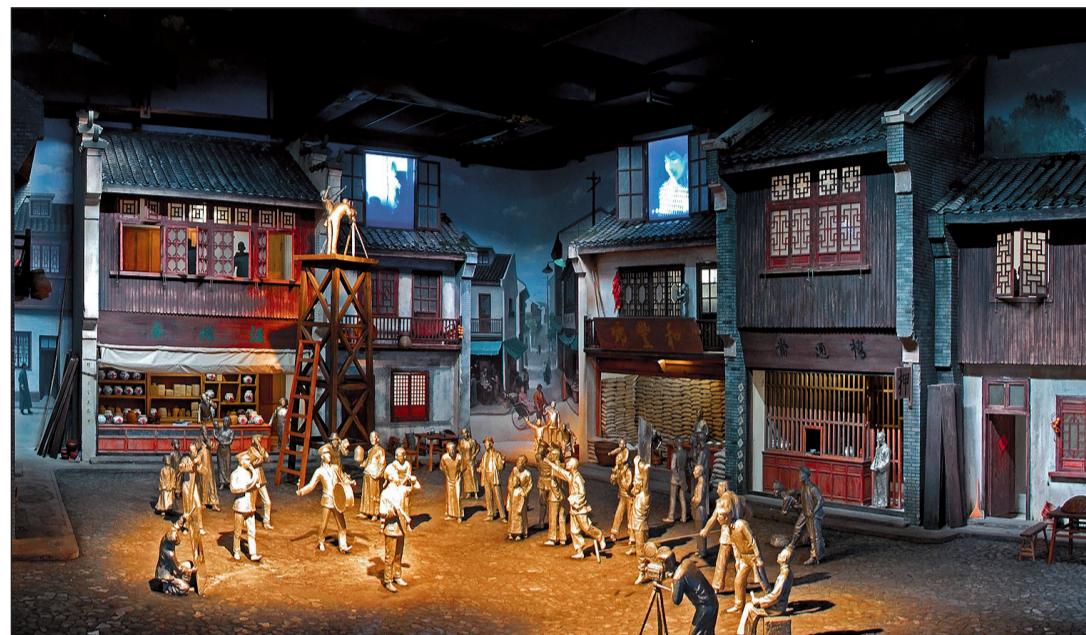
The museum contains a 4D-theater and several film studios in which visitors can be an actor, director or cameraman.

Tel: 021-6426 8666

Opening hours: 9am-5pm (closed on Mondays)

Admission: 60 yuan; 30 yuan for students.

Address: www.idealshanghai.com/Venues/9998/



Scan the QR codes for the museums' addresses and other details



"The 4D film The Monkey King is a must-see."



Zhang Yi, 33, father of a 5-year-old boy

The museum is a place that kids will like due to its collection of the city's film history and its high-tech features including a 4D cinema and interactive touch screens.

Our half-day trip starts

with a "Walk of Fame," where people can experience what stars and celebrities face when surrounded by cameras on the red carpet.

Comparing the historical relics, I think kids may love the cartoon-themed exhibits

in the museum that feature well-known Chinese cartoons such as Captain Black Cat and The Calabash Brothers. Kids can play interactive games by mimicking those cartoon characters and even drawing their own cartoons.

The 4D film "The Monkey King" is a must-see as it combines a 3D film with physical effects that occur in the theater. For parents, they had better bring a pair of children-sized 3D film glasses so kids can enjoy the film.



Museum of Songze Ruins

崧泽遗址博物馆

The 3,680-square-meter museum in Songze village, Qingpu District, provides a rare glimpse of Neolithic life in the region. It shows not only the ruins of a primitive society but also their tools and artifacts. The museum attracts academics, students and tourists who want to know what Shanghai looked like 5,000 years ago.

Tel: 021-5975 5777

Opening hours: 9am-4pm (closed on Mondays)

Admission: Free

Address: www.idealshanghai.com/Venues/11785/



**Fang Ting, 37
Mother of a 7-year-old girl**

Basically the museum is about the origin of Shanghai. You'll see exhibits about Shanghai's first residents, first well, first village, etc.

For kids over 10 years old, it's a good chance to learn Shanghai's history. But if your kids are younger, the museum has a huge outdoor space that allows them to run off some energy.

The museum is in suburban Qingpu District so it's far from the city center. Be prepared for a traffic jam at the highway exit leading to the museum on weekends.

Shanghai Fire Museum

上海消防博物馆

Shanghai Fire Museum is housed in a three-story building. It has a collection of over 21,000 photos, videos, firefighting equipment and other items to illustrate the evolution of firefighting and fire-prevention technology. It features a 4D cinema, an escape drill route, a firefighting laboratory, and other interactive exhibits.

Tel: 021-2895 5295

Opening hours: 9:30am-11:30am; 1:30pm-4:30pm (closed on Mondays)

Admission: Free

Address: www.idealshanghai.com/Venues/11782/



**Cheng Yong, 43
Father of a 5-year-old boy**

My son Xinxin recently fell in love with "Firman Sam," a Welsh animated children's television series about a fireman called Sam and his fellow firefighters. So we found ourselves at the Shanghai Fire Museum on a recent weekend.

The museum is near Zhongshan

Park. The most intriguing exhibits, for both my son and me, were the vintage firefighting vehicles used in Shanghai in the 1920s and '30. Painted in bright red, they were intricately designed and well-kept, all exports from Britain or the United States.



Shanghai Animation & Comics Museum

动漫博物馆

The museum at 60 Zhangjiang Road in Pudong is in a three-story building. Its vivid and fascinating exhibits show the history and development of the country's animation industry. There is an animation studio and 3D cinema as well.

Tel: 021-5895 7998

Opening hours: 10am-5pm (closed on Mondays)

Admission: 30 yuan

Address: www.idealshanghai.com/Venues/11784/



**Shen Ke, 31
Father of a 3-year-old girl**

The location is far from downtown, so we drove. Parking is free. Many children are fascinated by the models of superheroes like Spiderman, Ironman and Captain America on the first floor.

The second floor is a DIY area where parents and kids can make some handicrafts together. Parents can also take a rest while letting their children play by themselves. The most popular installation on the floor is the Totoro bus. Many children refuse to get out. There is a theater on the third floor.



Shanghai Natural Wild-Insect Kingdom

上海大自然野生昆虫馆

This is the first museum in the country to specialize in insects. More than 200 species of various creepy crawlies are on display. With high-tech equipment, the insect environments come alive so visitors can learn about their habits and experience the close relationship between humans and nature.

When it comes to show time, the insect kingdom never disappoints with the thrilling honey gathering activity, insect parade and food grabbing show. What's most unique in the museum is the interaction between animals and insects. Visitors can touch them, feed them, do some fishing, watch the animal show and make insect specimens on their own. It is such a great way to come into close contact with nature.

Tel: 021-5840 5921

Opening hours: 9am-5pm; weekends & national holidays: 11am/2:30pm for stage show

Admission: 60 yuan for adults; 40 yuan for kids and students

Address: www.idealshanghai.com/Venues/682/



Xia Qi, 36
Mother of a 3-year-old girl

The insect corridor on the first floor is not very long. Adults will probably find it boring, but kids love it. You can see stick insects, scorpions and the Hercules beetle, and you can watch them eating or grinding their teeth. Another floor displays many kinds of turtles and lizards. Some are cute and some are fierce.

You can buy fish food to feed fish in the Ecological Zone near the entrance, and you can also feed rabbits and goats. While this is incongruous with the point of an insect kingdom, kids just don't care. They love it all the same. You can make insect specimens in the specimen display zone and net a fish at the fishing zone. You can even buy the larva of some beetles and bring them home as pets.

Now here're some advice for moms. If you are afraid of snakes, try not to look at the show windows along the corridor after passing the fish pool and walk directly into the Insect Corridor. If you are frightened of insects, keep running and go downstairs. If you fear turtles and lizards, you'd better enter the butterfly hall. And if butterflies also scare you... well, go to the Super Brand Mall nearby and shop.

So, for moms who take children to the Wild Insect Museum but are not so brave, always remember to bring dad.



Shanghai Museum of Glass

上海玻璃博物馆

Shanghai Museum of Glass is good for visitors of all ages, with its sparkling and colorful galleries. The main section shows a range of glass items from ancient to contemporary, classic to avant-garde.

The museum is divided into five exhibition areas — What Is Glass; The Development of Technology; From Daily Life to the Forefront of Science and Technology; Demonstration of Art Creation; and The Hot Glass Workshop.

This is not just a place for viewing glass — it's also home to an exciting teaching experience. The hot glass performance shows the process of glass-making. In a high temperature stove of more than 1,100 degrees Celsius, glass is transformed to create brilliant artworks through softening, blowing, polishing and pressing.

Within the museum, the old glass furnace workshop of the Shanghai Light Industry Glass Co Ltd still stands. The workshop was refurbished by a famous French engineer.

Tel: 021-6618 1970

Opening hours: Tue-Sun: 9:30am-5pm; Sat: 9:30am-9pm

Admission: Admission: 48 yuan for adults; 28 yuan for students; free for kids under 1.3 meters.

Address: www.idealshanghai.com/Venues/10835/



Shanghai Textile Museum

上海纺织博物馆

Shanghai Textile Museum, south of Suzhou Creek, used to be the site of Shenxin No. 9 Textile Factory. It shows the development of the textile industry in Shanghai and the role of the city's textile workers in their struggle for liberation from unscrupulous owners. The museum is a site for patriotic education.

Tel: 021-6299 6969

Opening hours: 9:30am-4pm (closed on Mondays)

Admission: Free

Address: www.idealshanghai.com/Venues/11783/



Chen Jie, 37
Mother of a 4-year-old girl

The museum is one of the few good places that you can spend a pleasant afternoon with your kids free of charge.

Here little girls will be enchanted by the colorful ancient Chinese costumes and boys can get to know what astronaut's suits are made of. Even the parents themselves will be interested in all kinds of high-tech fabrics that are used in daily life. All the exhibits have English labels.

It is a shame that not many people know about it. The museum is spacious, so bring a stroller if you have a toddler.



Cai Jin, 36
Mother of a 3-year-old girl

Definitely worth the long ride to the museum, which is located in Shanghai's outlying Baoshan District. The museum building is nicely designed, wrapped in glass walls etched with Chinese characters. Inside, you can enjoy colorful and exquisite glass art and more.

The best thing about this museum is its glass-making workshop, where visitors can see hot glass blowing, and learn how glass is made.

The museum's cafe is also highly recommended. On the roof of the building, the cafe is artistic and has intriguing glassware.

Shanghai Children's Museum

儿童博物馆

Shanghai Children's Museum, a member of the American Association of Museums, aims to inspire, enlighten and entertain children with fascinating exhibits and programs. It educates young visitors through entertaining activities.

Tel: 021-6278 3130

Opening hours: 9:45am-3:30pm (closed on Mondays)

Admission: Free

Address: www.idealshanghai.com/Venues/11781/



Xia Ruirui, 37
Mother of a 4-year-old girl

The museum's ground floor has a replica of a submarine cockpit, which really fascinated my daughter. She loved playing with the mysterious buttons and the mock steering wheel in the cabin. Another attraction on the ground floor is a small hall designed to simulate the environment on the moon.

The second floor offers more interactive experiences. Children can try some simple science experiments, for example, learning about different sounds and structural mechanics to keep things in balance.

There's also a big game room where kids can pretend to be a barber, doctor, nurse and shopping assistant.

The only problem is due to poor maintenance, many props are broken or dirty. I suggest parents carry some antibacterial tissues or hand sanitizer to clean their hands afterwards.

Suffering from a lack of professional talents



Zhao Wen

The Ben Stiller film "Night at the Museum" displays a different museum world with dead exhibits coming alive at night. From virtual to reality, that's the dream of many museums in China.

But most museums here stand still with changeless exhibits, remote locations and amateur staff who see museums simply as a display room rather than a place to inspire people to learn and make the world a better place.

"Most museum employees are poorly trained and unprofessional," says Lu Jiansong, a museum expert and director of the department of cultural heritage and museology at Shanghai's Fudan University.

Lu says there is a severe shortage of museum talent in China due to the fast rise in museums in the past few decades.

This has resulted in a large number of unprofessional employees who fail to meet the demands of modern museums, which have shifted to be education and service focused from preservation and display only.

He says it is a pressing issue to improve the quality of museum staff and cultivate professionals, which is the fountain of innovation and development.

He talks with Shanghai Daily about the problems that need to be addressed in the sector.

Q: How many museums are there in China?

A: By the end of 2013, there were a total of 4,100 museums in China, including 400 science and technology museums.

Q: What's China's long-term goal in museum development?

A: China will continue to increase the number of museums. According to a government plan, by 2020, every 250,000 people will have one museum. In other words, China will have around 5,000 to 6,000 museums by that time.

China also encourages diversity. Museums specialize in topics like history, technology, modern art, natural history, ethnic groups, industry, community, intangible cultural heritage and specialized ones about local culture.

Of all the categories, the government wants to focus on developing science and technology museums. According to the State Council, a city with a population of over 1 million must have at least one science and technology museum by 2020.

Q: Why is China devoted to building so many museums?

A: Museums are an important measurement of a country's cultural vitality and competence. China is building more museums to meet the cultural needs of residents while promoting cultural exchanges with foreigners.

It is worth noting that the function of museums has changed. Museums are no longer just places to preserve and study cultural relics. They also play an important role in education, study, leisure and entertainment. The core values of modern museums lie in education and services.

Q: What's the biggest challenge in museum development today?

A: Many museums lack professional staff and experts, which is unhealthy for their development in the long run.

Only three of 140 employees have degrees in museology at the China Maritime Museum in Shanghai's Lingang New City. This is unacceptable.

According to a 2008 survey, only 10.3 percent of museum employees across the country had a college degree or above. The figure is too low, and this has a lot to do with college and universities, which produce few talents in this field.

So far, only about 30 universities in China have museology majors, and some programs are not very good. Universities such as Fudan University, Peking University, Nankai University, Zhejiang University and Jilin University produce

only 300 college graduates in the field every year, far from what is needed.

Q: What kind of professionals do modern museums want?

A: So far, Chinese museum professionals focus mainly on the study and preservation of exhibits. They lack creative ideas to help promote museums and cultural exchanges through activities.

Universities should break down the categories and cultivate specialized talents to suit the needs of different museums.

Q: What can be done to change the situation?

A: The government must compile a plan to develop high-end museum talent. For example, the museum authorities should conduct a survey to look into the needs of museums and cooperate with other departments such as scientific associations to cultivate the employees they want.

The Ministry of Education should expand the recruitment of museology majors and provide incentives to encourage more students to major in museology.

Universities and museums can be partners and carry out more internship opportunities to give students a chance to find out what they are interested in and gain practical experience while still in school.

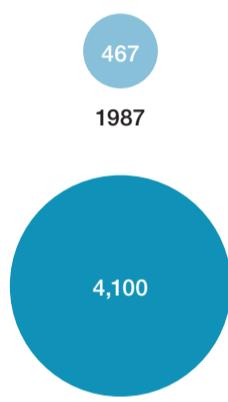
Q: How does China's museum development compare to foreign countries?

A: There are still too few museums in China. The United States, for example, has about 17,500 museums and most of them were built in the 1970s. The US also experienced a lack of talent at that time but it soon adjusted college disciplines to meet the demand, which has been successful. US colleges now have about 155 graduate programs in museology.

As for Japan, about 110 universities have museology majors, and around 6,000 students study every year.

China still has a long way to go before catching up with foreign countries.

Number of museums in China



467

1987

4,100

2013

Campus venues explore large variety of subjects



Donghua University

Shanghai Museum of Textiles and Costumes

It is the only museum dedicated to spreading knowledge about China's textiles and costumes. It offers a magnificent tapestry of history with informative archives, rich collections, vivid displays and exciting interactions. The museum is divided into four pavilions covering everything from ancient clothing to advanced textile technology.

<http://web.dhu.edu.cn/mtc>

Shanghai Conservatory of Music

The Museum of Oriental Musical Instruments

It is the only musical instrument museum with the biggest range of musical instruments among art universities in China. The museum holds more than 500 instruments from around the world. The oldest Chinese

instrument is the heptatonic bone flute unearthed in Jiahu, Henan Province, 8,000 years ago.

<http://www.shcmusic.edu.cn/html/dongfangleqibowuguan/>

East China Normal University

Museum of Ancient Chinese Coins

It displays over 500 ancient coins from the pre-Qin period to the end of the Qing Dynasty (1368-1644).

<http://gqbmuseum.ecnu.edu.cn/>

Fudan University

Museum of Fudan University

It has over 2,000 items including chinaware, bronzerware, famous Chinese calligraphy and paintings, as well as ancient coins. It also has oracle bone inscriptions from the Shang Dynasty (16th century - 11th century BC). It is best known for its collection of relics from Taiwan's Gaoshan ethnic group.

<http://www.chm.fudan.edu.cn/fuwubumen/lishiwenwubowuguan/>

Shanghai Jiao Tong University

Qian Xuesen Library & Museum

It contains more than 84,000 items related to Qian Xuesen, who founded China's

missile program.

<http://www.qianxslib.sjtu.edu.cn/>



Shanghai Ocean University

China Ichthyic Culture Museum

Check out more than 2,000 rare specimens including an 18.4-meter-long Physeter macrocephalus and 3.3-meter-long Acipenser sinensis.

Shanghai TCM University

Shanghai Museum of TCM

The earliest and largest TCM history museum in China covers more than 14,000 medicines from the Stone Age to contemporary times. It offers insight into the history and major achievements of TCM development in the last 5,000 years.

<http://www.shutcm.com/shutcm/bowuguan/>

Shanghai University of Sport

Chinese Wushu Museum

It is the world's first museum about the culture and history of wushu, a martial art. The museum covers styles and weapons and even has a small 3D cinema.

<http://www.wushumuseum.com/cn/>



Shanghai Jiao Tong University

C.Y. Tung Maritime Museum

The exhibition space houses the Chinese Maritime History Gallery and the C.Y. Tung Gallery. The former contains a permanent exhibition of maps, photographs, archival material, maritime trade routes and artifacts starting from the Neolithic Period. The gallery attempts to portray the legendary life of C. Y. Tung, one of the "Seven Sea Barons of the World".

<http://www.shutcm.com/shutcm/bowuguan/>