

# KOKORO NEWS

NO.60

2003. 5

**Tarbosaurus, Velociraptor and many others!  
Various dinosaurs appear one after another!**



**A dynamic dinosaur theater was finely completed!**

**The Dinosaur Center in Dinosaur Kingdom Nakasato was reborn!  
It was renewal opened as the Kannamachi Dinosaur Center.**

**Kannamachi Dinosaur Center  
(in Gunma Prefecture)**



A ribbon-cutting ceremony was held inviting related parties including Dr. Ikuo Obata, honorary advisor of the project. Dr. Ikuo Obata (second from the observers' right) and the village mayor Kazuo Kobayashi (sixth from the observers' right)

With municipal merger, the Dinosaur Center at Nakasato Village made a new start with a new name "Kannamachi Dinosaur Center" on April 1, 2003.



In the ceremony, Kokoro was awarded a certificate of appreciation from the village mayor Kazuo Kobayashi.



The premier show inviting elementary and junior high school students also won great popularity. We obtained feedback from them saying they were impressed or amazed by the show.

Former Nakasato Village is widely known as "Dinosaur Kingdom Nakasato", one of the few sources of dinosaurs in Japan where dinosaur footprints and dinosaur fossils have been found. The Dinosaur Center at Nakasato Village renewal opened.

Aiming for the entertaining and easy-to-understand exhibition, great improvement was made by drawing up the educational project in which the entire facility was revised to support "comprehensive learning time". Guided by Dr. Ikuo Obata and Dr. Masaki Matsukawa, advisors of the Dinosaur Center, Kokoro helped the project from the time of its planning toward the achievement of the unique and learning-effective exhibition.

The main exhibit is the overwhelming live theater "Dinosaurs come to life". It is an unprecedented dinosaur robot theater in which various dinosaur robots appear one after another and perform a dynamic drama accompanied by a commentary by a human-type robot "Hakase" (meaning "Doctor" in Japanese), which looks like Dr. Ikuo Obata. Entertainment elements are boldly incorporated in the theater to draw the interest of all generations. A lot of villagers and related parties including the village mayor gathered at the grand opening and the ceremony held on the previous day to celebrate village-wide the reborn Dinosaur Center in style.



**The live theater “Dinosaurs come to life” is the main exhibit of the Dinosaur Center which was reborn under the educational project. We realized the unique theater in which various dinosaurs appear and perform an ancient drama making use of the characteristics of the facility.**

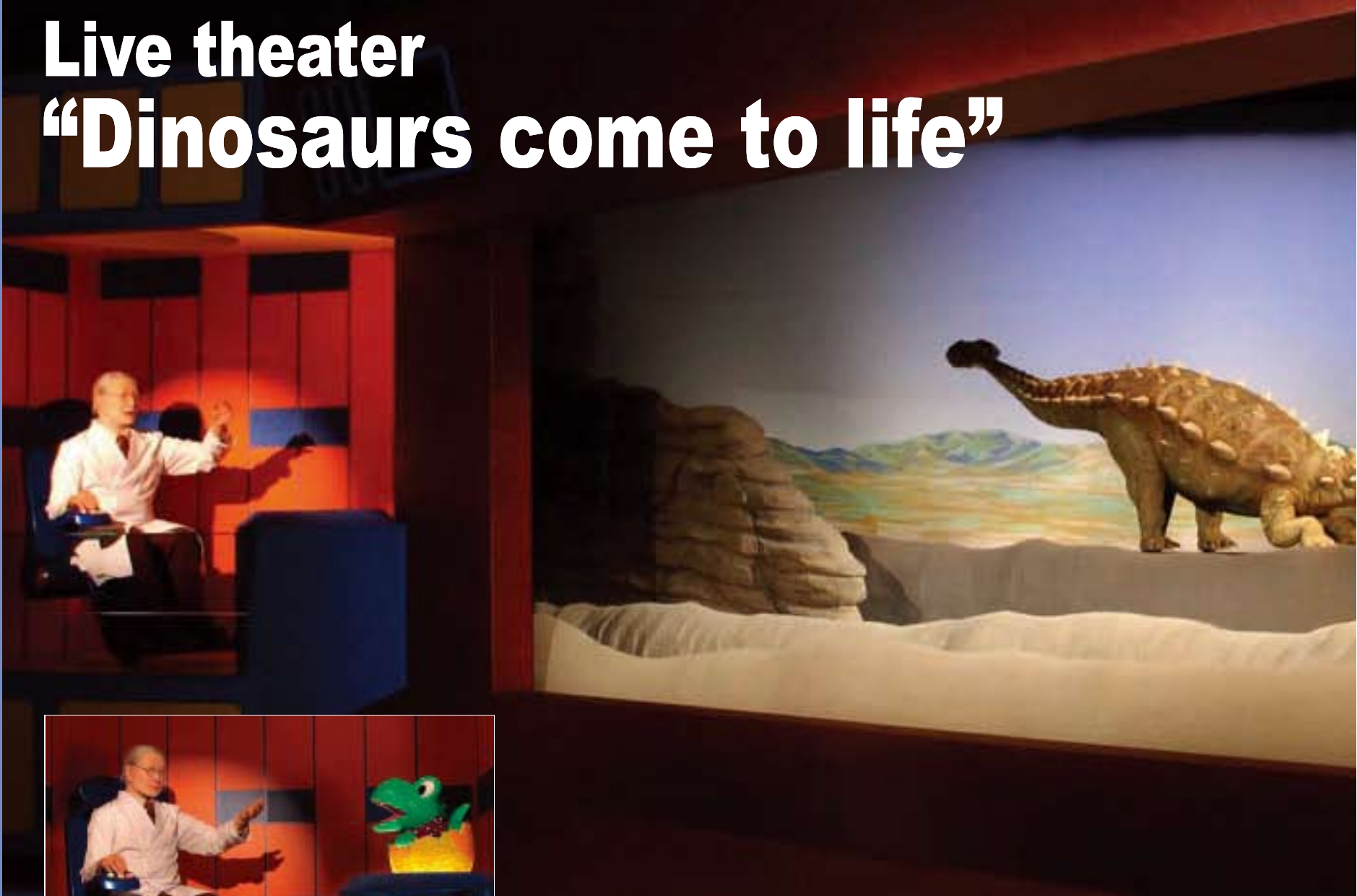
Various dinosaurs appear on the stage one after another and perform a drama about Mongolia 80 million years ago. The live theater “Dinosaurs come to life” is an unprecedented dinosaur theater which combines punch and diversity.

The dinosaurs which appear in the theater include Velociraptor and Protoceratops, whose fossils are world-famous as “fighting fossils”, Tarbosaurus, the giant meat-eating dinosaur, and so on. Skeleton fossils of these dinosaurs are displayed in the Dinosaur Center. That is, the theater full of originality is based on the setting that dinosaur fossils displayed in the Dinosaur Center have come to life.

The basic principle is to explain in an easy-to-understand manner the surprising biology of dinosaurs and that Mongolia and the Dinosaur Center are connected by the “Dinosaur Road”. We chose this robot theater among many other means as an easy-to-understand exhibition technique to entertain all generations. Anyone can enjoy the theater even if he/she is unfamiliar with dinosaurs.

A commentary is given by a human-type robot “Hakase,” sitting in the adjacent laboratory and serving as a storyteller, together with large-screen images. “Saurusu-kun”, a mascot character of the Dinosaur Center, also appears in the theater and explores the age of the dinosaurs with the guests. Let’s depart for a surprising 15-minute trip full of special effects including overwhelming rolls of thunder and illusions made by stage settings.

# Live theater “Dinosaurs come to life”



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**The large screen showing magnificent landscapes in Mongolia displays various visual data according to the story to promote understanding by the guests.**



## What is the “educational project” which supports the renewal?

The educational project aims for adjustments supporting “comprehensive learning time” which has been introduced in school education since 2002. To supplement insufficient parts, we planned to make various adjustments and introduce amusement exhibits to make the exhibition more pleasant and understandable making the best use of valuable dinosaur fossils found in the “Sanchu Graben” and in Mongolia (which are one of the main characteristics of the Dinosaur Center) and various hands-on educational programs including fossil excavation and practical training using replicas.

We also prepared a lot of information to provide to the guests with renewal of captions and publishing of comprehensive pictorial records and workbooks.

### Messages from the advisors of the project

With newly built panel exhibits, the guests can learn many geological principles while exploring the history of Nakasato. Recent research results were edited to be used for the story at the live theater. I think it is the world's first amazing creation achieved by the combination of animatronics and video images and that of light and sound.

Dr. Ikuo Obata,  
honorary staff of the National Science Museum

I'm surprised to see dinosaurs re-created to this level. By breathing life into skeleton fossils of dinosaurs displayed in the Dinosaur Center, their daily doings and daily lives have become clear. This new exhibition style has been brought about by results of scientific research and robotics. We can learn more about nature in the past through this exhibition.

Dr. Masaki Matsukawa,  
professor of Tokyo Gakugei University

## Other renewal points

### ■ Description panels



We increased unique description panels which also help improve the environmental image. These include internal illumination panels which light up the aisles and special graphics which pop up in the spotlight.

### ■ Addition of signs

We increased signs indicating names of exhibition zones and traffic lines of guests in order to organize the traffic lines in the entire facility and clarify the exhibition zones.



### ■ Renewal of captions



Vitalization center



Vitalization center

### ■ New guidebooks



We have published comprehensive guidebooks which cover all the exhibits and study workbooks for students which help as part of the “comprehensive learning time” curriculum.

We significantly increased the amount of information by putting in figures of dinosaur skeletons, etc. As texts are written in white, they are easy to read even with a shadow of a light or reflection. In addition, we aimed to enhance a sense of unity in the exhibition room by using existing colors of the facility as base colors.



One of the attractive points of the Dinosaur Center is that famous “fighting fossils” are displayed. A fierce battle between two dinosaurs performed in the theater will surely take your breath away!

- For further information -

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# Exhibition tours in main cities in Taiwan

## “Giant Insects’ Habit Educational Exhibition”

### Taipei, Tayuan, Kaohsiung and Taichung

This plan was materialized by the backup of China Times group (which includes CTi Television, a TV station in Taiwan), educational institutions and Kuei Jung Exhibition Co., Ltd. The exhibition consisted of “giant insect” robots made by Kokoro and other exhibits such as beautiful specimens and live insects. There was also a play corner for children. Starting from Taipei, it made exhibition tours in several main cities in Taiwan for 6 months. In “New York New York”, a department store in Taipei, a long line of guests formed at the entrance of the exhibition and a lot of guests gathered around each giant insect.

Exhibition tour schedule	
Taipei	New York New York ~ Feb 23, 2003
Tayuan	Big Egg Gym Feb 28, 2003 ~ Mar 16, 2003
Kaohsiung	Business Exhibition Center Mar 21, 2003 ~ Apr 20, 2003
Taichung	World Trade Center Apr 25, 2003 ~ May 18, 2003



Giant caterpillar

Themed backdrops picked out the insects and enhanced the effect.



The guests were surprised at the giant tarantula which threatened them lifting its legs luridly against them.



A lot of guests gathering around the giant insects demonstrated their popularity.



The event attracted much attention in the field and became big news in the media. The giant locust which jumped up to 2m high (with our president at the time standing by it), the giant mantis which threatened the guests swinging down sickle-like arms and the theater-type exhibit which re-created the moments when a dragonfly larva emerged from a pupa appeared in a newspaper with pictures of them. (China Times under the date of January 17, 2003)



## What kind of creatures were giant dinosaurs?

### “Seven Wonders of Giant Dinosaurs”

#### Special exhibition to celebrate the 10th anniversary of Unesco Village Great Dinosaur Exploration Museum(Tokorozawa City, Saitama)

A special exhibition was held between February 8 and June 2, 2003 to celebrate the 10th anniversary of the Unesco Village Great Dinosaur Exploration Museum. What kind of creatures were giant dinosaurs which were many times larger than human beings?

We can only find out about them from their fossils. They left us a lot of mysteries.

This planning exhibition was composed of “Seven Wonders” zones. Each zone was made so that it could attract the interest of children with participatory elements added to it. Children who visited the exhibition experienced various activities to solve the wonders. Kokoro participated in the project through planning to setup.

The most popular zone in this exhibition was a unique zone named “Competition between a giant meat-eating dinosaur and a small meat-eating dinosaur in hunting skill” where animatronics of Tyrannosaurus (life-size head) and Velociraptor spoke about their hunting skill.

Other areas were also crowded with guests. There was an interesting area where guests were able to touch a dinosaur coprolite and get a “touch certificate”.

Another hands-on corner where they were able to dig real fossils also gained popularity.

## Two dinosaurs speak! Competition in hunting skill!

A ribbon-cutting ceremony was held by Dr. Ikuo Obata, honorary staff of the National Science Museum, with two children.



Dinosaur coprolite (“Wonder of fossils” zone)  
You can smell and touch a dinosaur coprolite to detect a clue to the mystery of it.  
You can get a “touch certificate” here.

Fossil excavation laboratory (“Wonder of fossils” zone)  
You can dig real fossils using a hammer and a chisel.

Life-size dinosaur footprints  
 (“Secret about dinosaur footprints” zone)  
Many giant footprints of dinosaurs! You can feel the size of them and the length of their stride by actually walking on them.

Hear the call of a dinosaur! (Hands-on corner)  
It is thought that the call of Parasaurolophus, which has a crest with the U-shaped structure, resembles the sound of a wind instrument which has similar structure.  
You can hear how it sounds by actually putting air into it.

## Ride-on animals

“Elephant” Body: Up/down  
It cries.

“Hippopotamus” Body: Up/down  
It cries.

“Rhinosceros” Body: Up/down  
It cries.

Popular animals of Elephant, Hippopotamus and Rhinoceros joined the ride-on series. Kokoro has built large-type ride-on dinosaurs and animals in the past but these newly-built ride-on animals are small, intended for use by children. You can enjoy the realistic feel of their skin made of soft materials. These three ride-on animals are used in Hamura Zoo.

