

# Outline of the Museum, Tokyo Institute of Technology

Opened on April 1, 2011, the Museum was established to communicate to the campus and the world the scientific and engineering achievements of Tokyo Tech. The Museum houses (1) historical artifacts related to Tokyo Tech's education and research activities, (2) examples of the varied and wide-spread applications of Tokyo Tech research in both industry and society, and (3) objects highlighting the significant contributions to society made by Tokyo Tech alumni. The museum's collection is displayed in two locations: in the Centennial Hall on the Ookayama Campus and in the exhibition space on the 1st floor of the Frontier Research Center on the Suzukakedai Campus. Tokyo Tech's technological and scientific achievements in excellence are showcased in the various exhibits. In addition, the Museum boasts *Science Cafe* discussions and periodically hosts special exhibitions which provide an opportunity to bring together both academia and the public.

## Centennial Hall

The establishment of Centennial Hall was planned in 1981 as part of a series of projects to celebrate Tokyo Tech's 100th Anniversary. A fundraising committee led by Mr. Toshio Doko, the then-president of the Tokyo Tech Alumni Association, was established to collect donations from graduates and the corporate community. Generous donations made it possible for Tokyo Tech to erect this unique building. Since its opening in November 1987, Centennial Hall has played a central role in housing the University Collection

The Centennial Hall project committee developed two concepts, "human heritage" and "material heritage" on which to found the Museum. "Human Heritage" seeks to provide a space where the larger community can learn directly from leading experts with real world experience about the attitude necessary for getting involved with advanced science and technology. "Material Heritage" centers around the learning about technological developments and the historical background of research achievements as well as working with tangible materials. Combining these two concepts, Centennial Hall was created and became the forerunner of today's Museum.

The Centennial Hall building was designed by Professor Kazuo Shinohara. Construction began in October 1986 and was completed a year later in September 1987. After the commemorative ceremony and the official endowment from the fundraising committee at Tokyo Tech, Centennial Hall was opened to the public in November 1987.

Since its inception, Centennial Hall has been enhancing its functions and activities as a museum. The storehouse in the basement has been transformed into an exhibition room, as have the meeting rooms on the second floor. Special exhibitions with specific themes have been held several times a year in these renovated spaces. The Museum, along with Tokyo Tech Front and the new Library, which opened in July 2011, have become focal points of academic interaction related to science and technology, with day-to-day intellectual exchanges among researchers, students and the public.



#### Centennial Hall Exhibits

Since its opening in 1987, Centennial Hall has been a distinctive symbol of the campus, open to both Tokyo Tech and the local community. In addition to functioning as a university museum, Centennial Hall contains meeting rooms, a restaurant, a bar and a cafe. The expansive Exhibition Hall on the 1st floor is usually an open space for self-study and social interaction, and is sometimes used for special displays or symposia. The Ferrite Memorial Hall and its annexed lounge on the 3rd floor host medium-sized conferences, lectures and receptions related to Tokyo Tech's activities. Restaurant TSUNOBUE is located in the curved half cylinder on the 4th floor where one can enjoy meals and the view over the Ookayama Campus.

The rooms in the basement and on the 2nd floor house approximately 600 objects and 6,200 documents, some of which are proudly displayed in showcases. Items include precious equipment and materials that were used for education and research at Tokyo Tech before the establishment of Centennial Hall, along with additional items and works of art that were donated by alumni or other people after the completion of the building. Here is a selection of the items and works of art on display at Centennial Hall:

- Kosuke HIRANO's porcelain and china
- Ceramics, glass and dye works of art made by alumni
- Holography study materials and works of art
- Alumnus Shigeru KONDO's paintings
- Historical materials of Taizo MASAKI
- Historical materials of Seiichi TEJIMA
- Vacuum tube collection developed in the laboratories of Kiyoshi MORITA and Masami NISHIMAKI
- Architectural materials of Yoshiro TANIGUCHI
- Architectural materials of Kazuo SHINOHARA
- Measuring apparatus and computing machinery used at Tokyo Tech
- World technical heritage collection
- Textile machinery used at Tokyo Tech
- Large machinery developed at Tokyo Tech
- Issaku KOGA's research materials on quartz oscillators
- Ferrite research materials
- Historical materials on the post World War II Tokyo Tech reforms of Koroku WADA
- Robot research collections
- Photos of buildings taken when Tokyo Tech was established
- KOHASHI family documents
- Tokyo Tech historical materials
- A collection of notebooks owned by students of Tokyo Higher Technical School including Genkichi NIKI
- Shu KAMBARA collection
- Gear research materials of Takashi NAKADA
- Optical fiber communication research materials of Yasuharu SUEMATSU and Kenichi IGA
- Photochemistry research materials of Ikuzo TANAKA
- Nobel Prize information about Hideki SHIRAKAWA's conductive polymer research materials

In Special Exhibition Room A, the large glass case located to the right-hand side of the entrance displays Tokyo Tech's rotating collections. Other research objects and educational materials are on permanent display.

## Special Exhibition Room A

**Architecture:** Architectural models include the hydrodynamics laboratory building designed by Yoshiro TANIGUCHI and the Memorial Hall of Kyushu Institute of Technology designed by Kiyoshi SEIKE

**Ceramic Research:** Examples of Gottfried WAGENER and Kosuke HIRANO's achievements in ceramic engineering research

Alumni Works of Art: Works by Hazan ITAYA; heads of the *Mingei* or Folk-Art Movement, Kanjiro KAWAI (winner of the 1937 Paris Exposition and 1957 Triennale di Milano Grand Prize), Shoji HAMADA (Living National Treasure), and Tatsuzo SHIMAOKA (Living National Treasure); and other alumni

Chemistry and Chemical Engineering: Hideki SHIRAKAWA won the Nobel Prize in Chemistry in 2000 with Alan J. HEEGER and Alan G. MaCDIARMID for the discovery and development of conductive polymers

Ferrite Development: Oxide magnetic ferrite was discovered in 1930 by Yogoro KATO and Takeshi TAKEI at Tokyo Tech. Cobalt ferrite permanent magnets and copper-zinc ferrite high-frequency magnet cores were both synthesized at Tokyo Tech.

# Special Exhibition Room B

**Textile Machines:** Carding machine and other machinery used for students' experiments in education and research

**Robotics:** Robot exhibits including Masahiro MORI's GAWALK and a snake-shaped robot ACM-III

**Holography:** Medical hologram and alumni Artworks

**World Technical Heritage:** Exhibits include a Parsons turbine and a Stirling engine













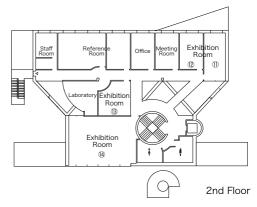




- ① Ceramics Research
- 2 Architecture
- 3 Chemistry and Chemical Engineering
- 4 Ferrite Development



- 6 Textile Machines
- 7 Gear Research Materials
- ® Robotics
- Holography
- 10 World Technical Heritage



- 1) Tokyo Vocational School Tokyo Institute of Technology
- ② Electrical Optical Communication
- (3) Centennial Hall and Kazuo SHINOHARA
- (4) Evolving Earth



Exhibition rooms on the 2nd floor were awarded the 2010 Good Design Award. This prize was presented to Tokyo Tech for the creative renovation of existing meeting rooms into exhibition space. In Japan, the Good Design Award is recognized as a comprehensive design evaluation and commendation system, operated by the Japan Industrial Design Promotion Organization (JIDPO).



# Tokyo Vocational School

# - Tokyo Institute of Technology

Tokyo Institute of Technology was first established in 1881 as the Tokyo Vocational School. The history of the University is displayed alongside panels that feature three of its noteworthy Presidents.

- Seiichi TEJIMA: Pioneer advocate of technical education in Japan
- Taizo MASAKI: First President of Tokyo Vocational School
- Koroku WADA: Leader of post World War II reform in universities

## Electrical - Optical Communication

This exhibit highlights the evolution of electronics and the development of photonics at Tokyo Tech since the late 1920s.

- Research and development in vacuum tube technology
- Issaku KOGA: Invention of the high-stability quartz oscillator
- Research in optical fiber communications pioneered at Tokyo Tech







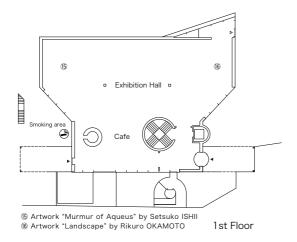
# **Evolving Earth**

This display consists of geological materials from the collections of the Museum of Evolving Earth, and results derived from the research activities of the Department of Earth and Planetary Sciences, Graduate School of Science and Engineering.

- The Earth/ The Solar System/ The Cosmos
- Field investigations spanning 4.6 billion years of Earth's history
- The oldest records of the early Earth
- History of life, the ocean and the atmosphere
- Exploring the Earth's interior

## Centennial Hall and Kazuo SHINOHARA

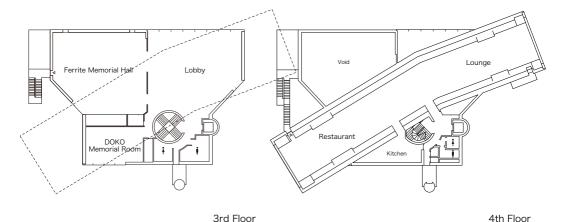
The Centennial Hall was founded as part of Tokyo Tech's 100th Anniversary celebrations. The building was designed by Kazuo SHINOHARA (1925-2006), who was honored with the Venice Biennale of Architecture's Golden Lion Award in memoriam in 2010. Models of his architectural designs are among the exhibits.





The Exhibition Hall hosts special displays, symposia, poster sessions and research presentations. It provides an open space for self-study and social interaction.

Two alumni works of art, "Murmur of Aqueus" by Setsuko ISHII and "Landscape" by Rikuro OKAMOTO, are on permanent display in the hall.



3rd Floor : Ferrite Memorial Hall
Lobby: The lobby in front of Ferrite Memorial Hall is open
to the public except on days when meetings are scheduled.

Ferrite was born at Tokyo Tech, commercially developed and produced by graduates of Tokyo Tech, and has since made enormous contributions to society. To commemorate the discovery of ferrite, this meeting room was named Ferrite Memorial Hall.



Restaurant TSUNOBUE is located in the curved half cylinder which gives the Centennial Hall its distinctive exterior appearance. In 1949, construction of the Faculty Meeting Place (Kuramae Memorial Building) was completed using precast concrete developed by Professors Heigaku TANABE and Kazuo GOTO. In that building, there was a tea lounge called "Tsunobue" which was an oasis for faculty members and students alike. On the occasion of the construction of Centennial Hall, the name Tsunobue was revived and given to the restaurant.



Faculty Meeting Place (Kuramae Memorial Building)

#### INFORMATION

#### Museum and Centennial Hall

Mon-Sat 9:00 – 21:00 (except holidays and special days when the building is closed)

- Special Exhibition Rooms (B1) and Exhibition Rooms (2F)
   Mon-Fri 10:30 16:30 Admission free
- Exhibition Hall & Cafe (1F) Mon-Fri 9:30 – 19:00 (last order 18:00)
- Ferrite Memorial Hall (3F)
   Mon-Sat 9:30 21:00
- Restaurant TSUNOBUE (4F)

Mon-Sat (reservations accepted only on Saturdays)

Lunch 11:30 - 13:30

Bar 17:00 - 20:30 (last order 20:00)

Tel: +81-3-3729-7762 Tokyo Tech extension: 4100



## Museum and Centennial Hall

2-12-1, Ookayama, Meguro-ku, Tokyo, 152-8550 Directions: 1-minute walk from Ookayama Station on the Tokyu Oimachi Line/ Tokyu Meguro Line Located at the entrance to Ookayama Campus

# Suzukakedai Exhibition Space

Mon-Sat 12:00 – 17:00 Admission free. (except holidays and special days when the building is closed)



### Suzukakedai Exhibition Space

4259, Nagatsuta-cho, Midori-ku, Yokohama, Kanagawa, 226-8503

Directions: 5 minutes walk from Suzukakedai Station on the Tokyu Denentoshi Line Located on the 1st floor of Building-S2 (Frontier Research Center), Suzukakedai Campus

#### Contact

- Museum and Centennial Hall Office (2F) Mon-Fri 9:15-17:15 (except holidays)

Fax: +81-3-5734-3348

Email: centshiryou@jim.titech.ac.jp URL: http://www.cent.titech.ac.jp/

- Suzukakedai Exhibition Space Office (1F of Building-S2)

Mon-Fri 12:00-16:30 (except holidays)

Email: suzu.frc@jim.titech.ac.jp

