

IABSE Workshop 2009 and Chinese Bridge Tour on Recent Major Bridges

The IABSE Workshop 2009 on Recent Major Bridges was a great success. It attracted 223 participants, including 103 delegates from 27 countries outside of China. The Workshop was held at Tongji University, Shanghai, China, on May 11–12, 2009, and was followed by some fantastic optional tours to major Chinese bridges. This event was organised by the Chinese Group of IABSE in conjunction with Tongji University and China Civil Engineering Society. It was the second IABSE event held in China after the Chinese Group of IABSE had hosted the IABSE Symposium 2004 on 'Metropolitan Habitats and Infrastructure' in Shanghai, which was one of the largest academic conferences in the history of bridge and structural engineering in China.

The Workshop consisted of one and a half day presentations by invited international and domestic speakers, the Plaque Unveiling Ceremony at the Lupu Bridge and a half-day technical tour of the Sutong Yangtze River Bridge in Jiangsu Province.

The Opening Session was hosted by Prof. Yaojun Ge, Chair of the Organising Committee and Secretary General of the Chinese Group of IABSE. Prof. Lichu Fan, Chair of the Advisory Committee and President of the Chinese Group of IABSE, delivered the welcome address, which was followed by a speech by Jacques Combault, President of IABSE, and addresses by Mr. Qinlian Tan, President of China Civil Engineering Society and Prof. Gang Pei, President of Tongji University.

Keynote Lectures

The Workshop attracted interesting keynote papers presented by illustrious engineers from around the world. The keynote lectures included:

China's Major Bridges

M. Feng, the former Chief Engineer of the Ministry of Communications China

Values of Bridge in the Formation of Cities

S.P. Chang, Vice President of IABSE and Professor of Incheon University Korea



The panel with Prof. Ge giving a speech

The Rion-Antirion Bridge – When a Dream becomes Reality

J. Combault, President of IABSE and Technical Director of Finley Engineering Group

From Bridges Across Great Belt and Oeresund Towards A Femern Belt Bridge

N.J. Gimsing, Emeritus Professor of Technical University of Denmark

Design Concept of The Twin River Bridges in Chongqing

M.C. Tang, Chairman of the Board of T.Y. Lin International

Aesthetic Design of Large Bridges – From Some Personal Involvement

M. Ito, Former President of IABSE and Emeritus Professor of University of Tokyo, Japan

Recent Major Bridges in Korea

H.M. Koh, Professor of Seoul National University, Korea

Major Bridge Projects – A Multi-disciplinary Approach

K.H. Ostenfeld, Former President of IABSE and Former CEO of COWI.

At the Invited Sessions twelve domestic experts gave the utmost interesting state-of-the-art in design and construction of major Chinese bridges in China, including presentations on: the Sutong

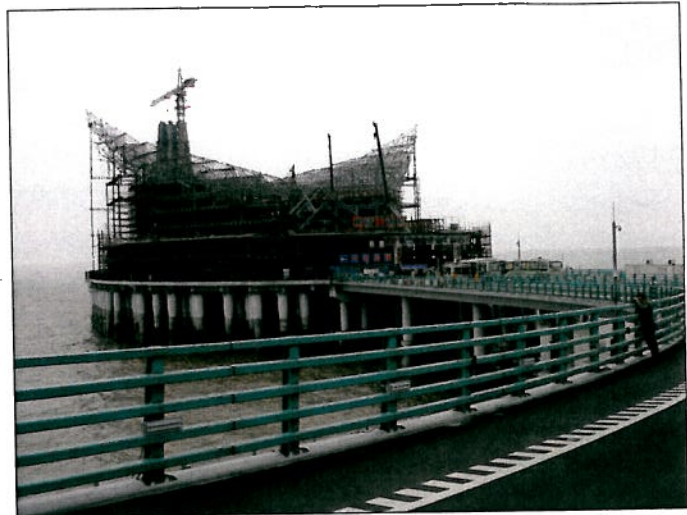
Bridge, the Chaotianmen Bridge, the Shibampo Bridge, the Xihoumen Bridge, the Hangzhou Bay Bridge, the Dashengguan Bridge, the Tianxinzhou Bridge and Caiyuanba Bridge; the major bridge development in Hong Kong; cable-stayed bridges in Shanghai; three major suspension bridges in Jiangsu Province; the bridges connecting Zhoushan Islands and mainland in Zhejiang Province, and the aerodynamic challenges in major Chinese bridges.



Sutong Bridge scaled model



Visiting Jintang Bridge



Hangzhou Bridge sea-platform

Technical Visit of Sutong Bridge

Some 150 participants joined the Technical Visit to Sutong Yangtze River Bridge, which was kindly sponsored by the Provincial Bureau of Communications.

The visit to this record breaking bridge, which has a main span of 1088m and opened to traffic in May 2008, found big interest. Visitors had the opportunity to tour the Sutong Bridge Visitor Center, situated on the Southern Bank of Yangtze River. The Center displays various items of the bridge, including several full scale prototype elements of the bridge girder, a great number of scaled models, components, pictures and documents. The Center explains in detail the construction of the Sutong Bridge. It is a unique learning ground for bridge engineers, and its lively presentations will serve as an attractive showcase of structural engineering. After a fine supper in a nearby restau-

rant, the Sutong Bridge by night was enjoyed during a bus excursion crossing the bridge twice with its spectacular lighting before returning to Shanghai.

The Bridge Tours

After the Workshop came a one-in-a-life time opportunity for visitors to join either a three days or eight days bridge tour. The tours presented the most important achievements of the Chinese bridge engineering community with visits to thirteen long-span bridges located in or close to the cities of Shanghai, Hangzhou, Nanjing, Chongqing and Wuhan. Many had previously been presented in the Workshop, and now the live viewing was overwhelming. It was possible to meet on site with the main engineers involved in the design and erection, and after their presentations there was time for extensive discussions and visits to the different sections of the bridges. For completed

bridges police closed selected traffic lanes so that the tour buses could stop on the bridge for the visit.

Three Day Bridge Tour

The three-day Bridge Tour was sponsored by the authorities of the bridges to be visited. 92 visitors from 25 countries took part in this three-day technical tour held from May 13 to 15, 2009.

The tour began with the visit to the sea-platform of the 36 km long Hangzhou Bay Bridge. On the service and tourist platform situated in the middle of Hangzhou Bay, a hotel with restaurants and a viewing tower are under construction.

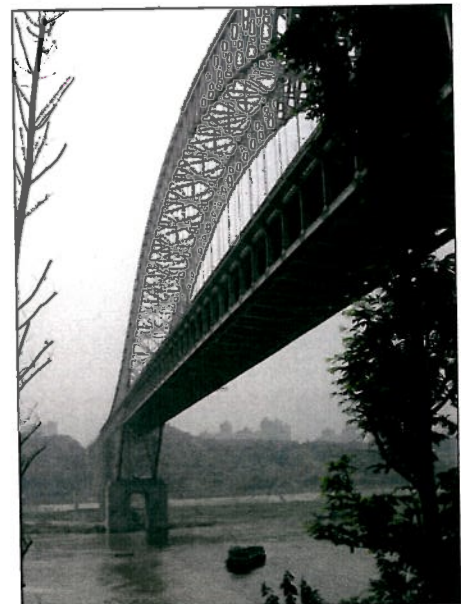
After lunch, Jintang Bridge was visited, a cable-stayed bridge with 620 m span crosses the main navigational channel of this 18 km long sea-crossing. After that the excursion went to the Xihoumen box-girder suspension bridge, with a main span of 1650m. In



J. Combault being interviewed.



Engineers at Xihoumen Bridge



Chaotianmen Bridge over Yangtze River

Plaque Unveiling Ceremony at The Shanghai Lupu Bridge

During the Workshop on Recent Major Bridges the Plaque Unveiling Ceremony for the Shanghai Lupu Bridge, winner of the Outstanding Structure Award 2008, took place. Jun Shen, Vice Mayor of Shanghai Municipality and about 250 delegates from the workshop and the local engineering community attended the Ceremony.

Last September, at the Opening of the Chicago Congress 2008 in September, Jacques Combault had presented a diploma to the structural engineers, the architect, the contractor and the owner of this remarkable bridge. The Lupu bridge received the Award for being "a soaring box-arch bridge of record span with clean impressive lines and innovative use of the side spans of the arch and the deck to resist the thrust of the main arch". The Shanghai Lupu Bridge is the first structure that receives this award in China.

The Plaque Ceremony was sponsored by Shanghai Municipal Engineering Design General Institute (structural engineer and architect), Shanghai Urban Construction Design Institute (structural engineer), SCG Shanghai Foundation Engineering Company (the contractor) and Department of Bridge Engineering in Tongji University.

It was hosted by Rong Huang, Director General of Shanghai Urban Construction and Communications Commission and speeches were given by Loring A. Wyllie Jr., Chair of IABSE Outstanding Structure Award Committee, J. Combault, President of IABSE and Jun Shen, Vice Mayor of Shanghai Municipality.

After the Vice Mayor of Shanghai with the President of IABSE had unveiled the Plaque, participants had the opportunity to climb the stairs to the



The Ceremony



Unveiling the Plaque



The Plaque

design. From the viewing platform on top participants enjoyed a spectacular view over Shanghai. Of special interest was the birds-eye-view over the construction site of Shanghai Exposition 2010, where massive construction is under way on the riverbanks next to Lupu bridge.

The Celebration was rounded off with a banquet and night cruise on the Huangpu River.

More information: www.iabse.org/association/awards/ostrac/Lupu.php

top of the arches, getting a close-up view of the bridge and the details of its



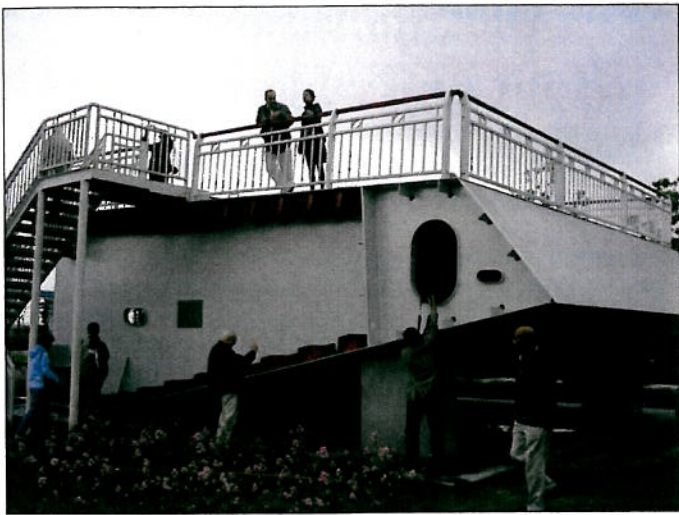
L.A. Wyllie giving a speech



The Lupu Bridge



K. Ostenfeld and J. Combault



At Sutong Bridge visiting center

the late afternoon of May 13, the visitors stopped and walked at the deck of the Taoyaomen Bridge, a steel-concrete hybrid cable-stayed bridge with a main span of 590m completed in 2005.

On the second day, the Jiangdong Bridge near Hangzhou City, a self-anchored suspension bridge (central span 250m) was on the visiting programme.

During the last day of the tour, the visitors got a chance to see three major bridges in Nanjing City, including Dashengguang Bridge under construction, an arch truss railway bridge with the longest spans of 336m; the 3rd Nanjing Yangtze River Bridge, a cable-stayed bridge with a main span of 648m completed in 2004, and a double deck bridge over the Nanjing Yangtze River for both highway and railway built 41 years ago.

The Five Day Tour

For 35 visitors from 16 countries, the journey continued on a fabulous five-day tour (May 16–20), consisting of a

two-days technical visit and three-days “three gorges” sightseeing.

On the first day the group headed to Chongqing, claimed as the capital city of bridges. Three major bridges were visited, including the girder bridge Shibampo Bridge; Caiyuanba Bridge, a central through arch bridge, and Chaotianmen Bridge, the longest span arch bridge in the world.

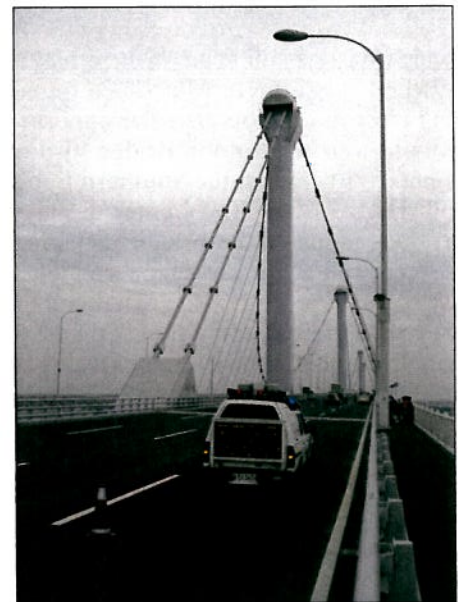
The participants enjoyed the famous cruise on the Yangtze River through the three gorges on the last three days: Qutang Gorge, Wu Gorge and Xilin Gorge. On May 20, two typical major bridges in Wuhan were visited, including the long cable-stayed Tianxingzhou Bridge, and finally Wuhan Yangtze River Bridge, the first bridge across Yangtze River built 52 years ago.

IABSE thanks the Chinese Group of IABSE, Tongji University and the China Civil Engineering Society for the organisation of this memorable event, presenting the most important achievements of Chinese bridge engineering,

which not only gendered important discussions on current developments about design, construction, management and assessment of long-span bridges but also valuable new ties in the structural engineering community.



Dashengguang Bridge under construction



Visiting Jiangdong Bridge with help of police



The cruise ship



Enjoying the cruise