

## 1999 Annual Excellence in Structural Engineering Design Competition

The May dinner meeting of the Structural Engineers Association of Illinois (SEAOI) will feature presentations by the project finalists in the 1999 Excellence in Structural Engineering Awards program. Representatives from the firms named as finalists will present discussions of the merits of their projects before a panel of distinguished leaders in the construction industry. The Structural Engineers Association of Illinois is pleased to announce the winners in the Excellence in Structural Engineering Awards. The awards were presented at the annual banquet on Saturday, June 12, 1999.

### Best Structure



**Damen Avenue Bridge**  
J. Muller International

With two massive, arcing steel ribs as the main structural elements, the new Damen Avenue Arch in Chicago is a functional and elegant design solution. Engineers used an elegant form to come up with a functional solution when designing the new Damen Avenue Arch in Chicago. Two steel ribs, created using heat induction bending, closely approximate the ideal form for transferring the bridge's live and dead loads to cast-in-place concrete abutments. The ribs puncture the steel deck and hit the abutments below the bridge's back spans, creating an interesting space below the bridge that will eventually accommodate part of a riverwalk. Workers built bridge elements both on and off site. The massive ribs reach their destination via a barge trip through Lake Michigan and the Chicago River.

## **Most Innovative Structure**



**The Miho Museum Bridge**

Shiga-Raki, Japan

Leslie E. Robertson Associates, R.L.L.P.

In 1991, Shinji Shumeikai decided to build a museum around Koyama's collection of Japanese art. But Pei suggested incorporating art of other cultures as well, so the group, assisted by art dealer Noriyoshi Horiuchi, embarked on a worldwide buying spree. Museum officials decline to reveal the total cost, but one extraordinary item--an Assyrian relief of an ancient king--cost \$12.7 million at a Christie's auction. Building the museum cost \$25 billion (\$190 million): A tunnel had to be drilled to create a path from the parking lot, and Pei designed a bridge to take visitors across a valley to the entrance.

## **Best Special Structure**

**Church of the Holy Communion**

St. Peters, Maine

Wiss, Janney, Elstner Associates, Inc.

### Award of Merit



**Adler Planetarium**  
Chicago, IL  
Rubinos & Mesia Engineers, Inc.

The architecturally striking Sky Pavilion is a two-story, 60,000-square-foot addition on the east side of the Adler's existing 1930 landmark structure and is the largest capital project ever undertaken by the Museum. It comprises of four major exhibition galleries, the StarRider Theater, an Education Center and the Museum's new restaurant. The upper level of the new wing, topped off by a spectacular glass arcade, provides a superb view of the city skyline, Lake Michigan and the day and night skies.

### Award of Merit



**Hong Kong Convention and Exhibition Centre**  
Hong Kong  
Skidmore, Owings and Merrill

The 1.6 million sf extension of the Hong Kong Convention & Exhibition Centre (HKCEC) was the site of Great Britain's formal transfer of Hong Kong's sovereignty to Chinese rule on June 30, 1997. The extension includes a 4,500 seat convention hall, three exhibition halls totaling 330,000 square feet, pre-function areas, support facilities and restaurants. Spearheaded by the Hong

Kong Trade Development Council, this project was programmed and designed by SOM in association with Wong & Ouyang (HK) Ltd.

### **Award of Merit**

**Terminal One**  
Jamaica, New York  
Thornton-Tomasetti Engineers

### **Award of Merit**



**Caryl's California House 1**  
Point Richmond, California  
Holabird & Root

Built directly over the water, the three-story, 2,600-s.f. house provides immediate access to a boat slip and the surrounding bay. Column bays form a grid supported on steel trusses on pilings in the water. Inside, public and private spaces intertwine throughout, with abundant natural light accentuating interior finishes.

### **Judges**

**Paul Karr**  
Senior Structural Engineer (Retired)  
Portland Cement Association

**William Moody**  
Principal  
The John Buck Group

**Leonard Peterson**  
President  
O'Donnell, Wicklund, Pigozzi & Peterson

**Mary B. Richardson-Lowry**  
Commissioner  
Chicago Department of Buildings

**Edwin C. Rossow**  
Professor  
CE Department of Northwestern University

**Paula Widholm**  
Editor  
Midwest Construction Magazine