# Fact sheet for Chinese garden

Laurie Sowd, Associate Vice President for Operations—October 2007

# People involved

- Idea originated with Jim Folsom.
- Original conceptual designs by Bob Ray Offenhauser and Frances Tsu (a professor of Chinese architecture) and Jin Chen (native of China, received masters degrees in architecture and landscape architecture in the US, was a Huntington employee from 2001-2003).
- Suzhou Institute of Landscape Architectural Design—Chinese designers—developed conceptual drawings into working drawings, specified decorative motifs, etc.
- Suzhou Garden Development Company—Chinese contractor—selected and fabricated materials in China, shipped them to US, provided artisans to assemble structures on site.
- Offenhauser and Associates—US architects—took Suzhou's working drawings, turned them into construction drawings, engineered for structural and utilities, submitted for plan check, oversaw work on site.
- ValleyCrest Landscape Development Company—US contractor—built infrastructure (utilities, concrete, structural steel), hired artisans from Suzhou as employees, oversaw and supported their work.
- Huntington team—Jim Folsom, concept, design and construction oversight, landscape;
  June Li, curator, design refinement, program development; Laurie Sowd, project management; David MacLaren, landscape.

#### **Timeline**

- Late 1980's—Jim conceived of the garden as a showcase for Chinese plants.
- Mid-1990's—Frances Tsu and Bob Ray Offenhauser drew initial concept plans.
- 2001-2003—Jin Chen evolved conceptual plans.
- 2001-2002—Suzhou Institute for Landscape Architectural Design and Suzhou Garden Development Company hired for design and construction.
- Late 2004—ground breaking for lake and utilities.
- Summer 2006—lake construction completed.
- March 2007—pavilion construction begun.
- February 2008—public opening of Liu Fang Yuan.

## Construction materials and techniques

#### Rocks

- What are they? Limestone.
- Where are the from? The area near Lake Tai, west of Suzhou.
- Why are they so holey? They are naturally that way. Traditionally, the limestone rocks were put in the bottom of Lake Tai where the hammering waves ground small hard pebbles into the porous limestone, smoothing the natural holes.
- How many of them are there in the garden? About 850 tons.
- How big are the peak rocks? The tallest is about 14'.
- What are the desirable characteristics of peak rocks? Sculptural rocks should have a sense of transparency, with holes that allow things to pass through them; they should be elegant and ethereal, often balancing on their narrowest end; and they should have texture, or appear to have wrinkles.
- Why did we bring them from China? The are unique to that region, traditional in southern-style gardens, and affordable because we had free shipping from COSCO (China Overseas Shipping Company).

#### **Pavilions**

- What are the roof tiles made of? Fired clay. The area south of the Yangzi River where Suzhou is located is famous for its yellow clay that is the right texture for bricks and roof tiles. The clay is mixed with water and put into molds. It is baked in a brick kiln fired with rice straw. The temperature rises gradually as the bricks bake for about 40 days. The smoke of the rice straw colors the bricks gray and allows them to be coated with ash, giving them beautiful color and texture.
- Where were they made? In Suzhou, by a company that specializes in this.
- What are the floor tiles made of? They are the same process as the roof tiles, but are of a higher quality, since they bake longer. That extra quality is needed because of the wear they receive.
- What kind of wood is used in each structure? Most of the wood is fir. The lattice in the lotus pavilion is gingko. The carved panels in that pavilion are nan wood. The railing on the tea house terrace is cypress. Some small carving details are done in fragrant camphor.
- Where does the wood come from? All of the wood comes from China, except for the wood that wraps around the columns. That is a specially manufactured wood made here to encase the steel columns. The nan wood comes from Yunnan Province, near the border with Myanmar. Camphor comes from Fujian Province. The rest is from various places in China.
- Who drew the designs for the Suzhou carved scenes and floral designs in the lotus pavilion? Mr. Meng Jianhong, the senior engineer with the Suzhou construction company who is supervising this project drew the designs. The Suzhou design company then hired an artist to refine them.
- Who drew the designs for the camellia carvings on the tea shop doors? Local artist Pei-fang Liang-Wang painted the designs; they were carved in Suzhou by our construction colleagues.

• What is the process for carving the decorative panels? An artist first does an ink drawing on paper that has a carbon back. That paper is pasted onto the wood and the design transferred. Our Suzhou scenes were done by two or three carvers, one working on each panel. Many people critiqued their work as they made adjustments to refine it.

### Wall

- Why is the wall undulating? Named "Wall of the Colorful Clouds," it provides an indirect reference to the beneficial dragon that lives in the water and rises to the heavens (or clouds) to bring rain.
- **How is it made**? It is reinforced poured-in-place concrete. The artisans built up the gray portions of the roof cap with plaster and set roof tiles on their ends to form the "scales."
- How were the leak windows made? The Suzhou construction company started with a flat wooden board, slightly larger than the finished window. They drew the design onto the board. By driving nails into the board vertically, they outlined the design. Then they wrapped fine wire mesh around the design to create the pattern you see. Finally, they built up the window by applying layers of plaster onto the wire. Each window along the wall is a parallelogram. The wall was built here; the windows in Suzhou—it is remarkable that the windows fit perfectly!

#### Stone elements

- What kind of stone is used in the bridges? Solid granite.
- Where is it from? This is the famous Jin shan granite from Gold Mountain in Suzhou
- **How was it carved**? The artisans first made clay models; we worked with them to refine the sculpture. Then they carved the stone by hand.
- How was the texture created? By hand, with a small hand-axe.