

## Giant Water Clock

Standing at 26.5 feet, The Children's Museum Water Clock is the largest in North America!

Peter Sterling, a former museum president, saw one of Bernard Gitton's clocks in Brazil and was struck by its beauty and scientific genius. Sterling sought out the artist/inventor in his native France and was responsible for bringing him to the United States. Gitton built and assembled the clock in

Gitton's towering clocks are found in major cities around the world, including: Paris, Berlin, Tokyo, and Rio de Janeiro. Water clocks date back to ancient Egypt and ancient Greece, but none can match Gitton's in accuracy or innovation.

More than 40 glass pieces specially blown in factories throughout Europe, 100 metal pieces, and 70 gallons of a water/methyl alcohol mixture comprise the clock.

The number of filled hour spheres lining the left side of the clock and the number of filled discs on the minutes side of the clock tell visitors the time of day. Each minutes disc represents two minutes.

A pump hidden below the base of the clock pushes the liquid into a reservoir tank at the top of the clock. From there it flows into a glass cupel (a shallow cup or scoop) attached to a green neon pendulum. As the cupel fills, the increasing weight causes its arm to dip and empty the liquid. The cupel then returns to an upright position, thus propelling the pendulum. This occurs every two seconds, keeping a steady stream of liquid flowing into the clock's systems of siphons.

The siphons produce vacuums in the tubes that pull a fixed amount of the bright blue liquid into the minutes column of discs every two minutes. Every hour, the minutes column empties, creating a vacuum that draws enough liquid into the hours column to fill one of the hour spheres.



France, then disassembled it and shipped the components to Indianapolis. In 1988, Gitton and two assistants traveled from France to help museum staff reassemble the clock, which took two weeks. The clock was brought to the museum through a contribution by Mr. and Mrs. Richard D. Wood. The clock is the centerpiece of the dramatic Sunburst Atrium.