A building with waterfall walls that can display images and words is being designed by a team of architects and engineers.

The interactive "digital water pavilion," to be unveiled at the International Expo Zaragoza 2008 in Spain, will feature an exhibition area, café and various ps enclosed within curtains of recycled water.

The MIT team's pavilion showcases the potential of "digital water" and will be the first time that this idea has been implemented in architecture. Since recycled water is sometimes cheap and plentiful, water walls could conceivably be created on a larger scale in the future.

"To understand the concept of digital water, imagine something like an inkjet printer on a large scale, which controls droplets of falling water," said Carlo R SENSEable City Laboratory.

The effect is created by a row of valves spaced along a pipe suspended in the air. A computer controls the opening and closing of the valves. This produces water similar to a waterfall, with gaps at specified locations. The entire surface becomes a liquid display that continuously scrolls downward. The resulting pattern of air and water droplets resembles the digital pixels used to create images on computer monitors and other displays.

The water curtains are also equipped with motion sensors. "You could throw a ball at the wall, and then see an open circle drop down to meet it precisely where and when its trajectory intersected the water surface," Mitchell explained, "and like the Red Sea for Moses, open up to allow passage through at any point."

The first international exposition took place in London in 1851. Since then, numerous expositions have been held all over the world, including the Paris Expc gave birth to the Eiffel Tower.

An interactive video is available at the Digital Water Pavilion website.

- Image Gallery: The World's Tallest Buildings
- A New Wave: Scientists Write on Water
- New Buildings to Dance in the Wind
The Digital Water Pavilion will contain an exhibition area, a cafe and public spaces. Credit: carlorattiassociati

Related Items from the LiveScience Store

TIX Color Code Clock
$49.95

Mouthpiece Covers for AlcoHawk, 10 Pack
$6.95

More Stores to Explore

From Our Blogs

07.20.07 | by Leonard David
**SpaceShipTwo Development Benefits By New Equity Deal**
Northrop Grumman's 100 percent equity plans for Scaled Composites in Mojave, California will not impact work underway in developing the commercial, ...

07.19.07 | by Dave Brody
**The Overview Effect Goes Viral**
Back on February 7th 1971 (Earth time), Ed Mitchell was speeding much faster than a rifle bullet, on track between the Earth and Moon. That's when ...

07.13.07 | by Robert Roy Britt
**Why We Worry About The Weather**
Weather used to be something that happened to humans, something we could wonder about. Those days were wonderful. Since we couldn't do anything abc
Global Warming: How Do Scientists Know They're Not Wrong?
Mounting evidence and fulfilled predictions back up climate change ...

Scientists Monitor Freak Mudflow
Scientists observe unique lahar event ...

Deep Volcanic Fizz Forces Earth to Burp
The mild eruptions of some volcanoes are driven by rising air ...

Secret to Abalone Shell Strength Revealed
It looks dainty hanging from a necklace, but mother-of-pearl is super ...

Full Moon Sends More Dogs and Cats to Emergency Room
Researchers don't know why, ...

Nature's Biggest Pests
From ...

Robot Air Attack Squadron Bound for Iraq
Officials exploring robotic options to fighting in ...

Speech Recognition Software Finally Works
Dragon NaturallySpeaking software turns 10 this ...

Boy, These Receptionists are Real Robots!
A Japanese company has hired a robot to do a traditionally human ...