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DIGITAL WATER PAVILION

TIME Magazine “Best Inventions of the year - Architecture (2007)”

- A monograph on the Digital Water Pavilion will be published in June 2008 by Electa/Mondadori. Among others, it contains critical essays by professors William Mitchell, Antoine Picon and Carlo Ratti.
- The DWP is placed at the entrance of the Zaragoza Expo 2008, just before Zara Hadid's newly designed bridge. It contains a tourist office, an info point and an exhibition space. From its terrace one can enjoy breathtaking views over the Expo site.
- The DWP is the first building ever whose external facades are completely made of digital water curtains.
- Water curtains are digitally controlled and they feature embedded sensors. Openings are dynamically created in the water curtains, so that people can move freely in and out of it. Water curtain partitions inside the building can dynamically change, based on necessity and use.
- The water curtain technology is similar to an ink jet printer on a large scale, which controls droplets of falling water. The entire surface becomes a one-bit-deep, 100x4 m digital display that continuously scrolls downward.
- The DWP has just one main solid element, the roof: it is a high-tech, 400 mm thick moveable structure Engineered by ARUP and built by Siemens. The roof rests on moveable piston and can change its height: it is normally at 4m, it can lower down to 2.5m in the case of strong winds and it can also be flattened onto the ground At that point the whole building disappears.
- The building contains 3000 digitally-controlled solenoid valves, several dozen pumps, 12 hydraulic stainless steel piston and a digital control system based on open source software.